THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES. DETROIT, SATURDAY, NOVEMBER 26, 1859. VOL. 1., NO. 48.

The Michigan Farmer,

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue,

DETROIT MICHIGAN.

The MICHIGAN FARMER presents superior facilities to business men, publishers, manufacturers of Agricultura Implements, Nursery men, and stock breeders for advertising.

Terms of Advertisements.

Ten cents per line for each insertion when ordered for one month or less.

All orders with advertisements, should state the number of weeks the advertisement is to be published.

Subscription.

We will send one copy for $2,00; three copies for $5,00, five copies for $8,00, and ten copies for $15,00. No paper sent without the money in advance.

☞ We will also send the FARMER, and the Atlantic Monthly, or Harper's Magazine to any address for $4,00

Also the MICHIGAN FARMER and the Horticulturist or Hovey's Magazine of Horticulture to any address for $3,50.

CONTENTS.

THE FARM:
The Agricultural College—Report Proposing a Professional Course of Instruction..... 377
A Treatise on Fencing..... 378
The Potatoe..... 378
Make Farm Labor Fashionable..... 378
Economy Illustrated..... 378
Prince Albert Potato..... 378
Pea Vine Clover..... 378
Potato Rot..... 378
THE GARDEN AND ORCHARD:
Visit with a Jackson Horticulturist..... 379
Vicar of Winkfield Pear..... 379
The Science of Gardening..... 379
Italian Bees..... 379
Select Lists of Pears..... 379
Stems of Trees—An Essay..... 380
Keeping Cabbages..... 380
Drouth..... 380
Profitable Field of Blackberries..... 380
The Potato Bug..... 380
Death of the Inventer of Perpetual Motion..... 380
EDITORIAL:
The Agricultural College..... 381
The Examination at the State Ag. College..... 381
The Markets and their Prospects..... 381
Resolutions of the Board of Education..... 381
The U. S. Agricultural Society..... 381
Scientific Intelligence..... 381
General News..... 381
HOUSEHOLD:
Poetry: The Whippoorwill—Homeless..... 382
Preparing for Winter..... 382
The Country Village..... 382
What Girls Can Do..... 382
Varieties: Is the World a Mistake—Whetting His Own Scythe—Perseverance—Sympathy..... 382
The Deacon's Dinner Party..... 382, 383
Everyday Heroism..... 383
Enigma, &c..... 383
Markets..... 384

The Farm.

The State Agricultural College.

Report Proposing a Professional System of Instruction.

To the State Board of Education:

GENTLEMEN—A new catalogue of the State Agricultural College being in preparation, it has been thought a favorable time to mark out more distinctly the plans of instruction and courses of study for that institution.—Being, *ex officio*, a member and Secretary of the Board of Education, and equally interested with you in the care and management of this College, and being, moreover, as Superintendent of Public Instruction, bound in duty to study the general educational interests of the State, of which the Agricultural College forms but a part, it seems proper that I should offer such suggestions as have occurred to me to aid in the more perfect and efficient organization of this important State institution. I submit, therefore the following views for your consideration:

"The chief purpose and design" of the Agricultural College, as defined in the law (section 4,) "shall be to improve and teach the science and practice of agriculture." In adopting the constitutional provision requiring the speedy establishment of an agricultural school, the people of this State deliberately expressed their conviction that there was a public need of such an institution. The Legislature, in enacting the law under which the Agricultural College has been established, did but obey the voice of the people as found in the constitution, and the State Board of Education, to whom the care of the institution is by law intrusted, is evidently bound to carry out as fully as possible the mandate of the constitution and the provisions of the law. It is not even left to the Board to inquire whether there is any such need or demand for agricultural education as will insure the College a fair supply of students. The people and the Legislature have clearly expressed their will that there shall be trial made of such a school, and until the experiment has been fully and fairly tried, the Board of Education cannot rightfully nor with any modesty pronounce the plan impracticable or refuse to carry it out. Much less can they properly divert their funds from their original destination, to build a merely literary or scientific institution.

A course of ordinary literary and scientific studies, with a mere admixture of agricultural science, will obviously fall short of the true constructive idea of the school. Such an admixture of agricultural science might have been, and indeed is now, often introduced into the curriculum of study in the higher institutions. An institution of general learning, with a mere bias towards agriculture, cannot, even with the aid of a model farm, serve very efficiently "to improve and teach the science and practice of agriculture." The improvement and teaching of agriculture must be made the chief and central purpose of the school. It is safe to assert that, as a school of general education, its establishment would never have been urged by its friends nor voted by the Legislature. There was no demand for the organization of another State institution of general learning. The University, and Colleges and Union Schools already supply, or can be made to supply all demand for general higher instruction, and it would be plainly inexpedient to burden the State to establish another institution, at so much expense, to do this work and to come into competition with the organizations already covering this ground. Nor was it, as it has sometimes been asserted, the purpose to furnish a school peculiarly for farmers' sons. Farmers constitute a portion of every community and are equally interested with all our citizens in the general educational institutions of the State. The University and Colleges of the State are as free to the sons of farmers as to those of merchants or professional men, and their courses of study, as their main aim is simply to educate, are as valuable for the farmer as for the lawyer or physician. Not merely to educate farmers' sons, but to teach farming, to improve the science and practice of agriculture,—such was the aim proposed by the law for this institution. To meet this design of the Agricultural College, as defined in the law, there must be a main central course of purely professional study embracing all those sciences which may be necessary to a full and correct understanding of the principles and processes of scientific agriculture in all its departments. It should comprehend such a series of instructions and practical exercises as may fit the pupils to become successful and scientific agriculturists. The young farmer, in short, should be able to find here precisely that instruction that will enable him to manage his farm intelligently. He should be permitted to study agriculture alone, without being compelled to the perusal of extraneous and irrelevant studies in order to graduate.

The time occupied by this course should not be so extended as to place the course practically beyond the reach of the great mass of our young farmers. It should not be made superficial in order to make it short, nor should it be so extended as to discourage students from the attempt to complete it. If too brief it will fail of its purpose of making intelligent and scientific farmers; if too extended few will remain long enough to accomplish it, and the College will fail to educate fully, any considerable proportion of its students.

I am of the opinion that the course of agricultural studies should not embrace more than two years. The period of study for the learned professions, and in the Schools of Art rarely exceeds, and often falls short of that term. A sufficiently complete course can easily be completed by those students whose age and previous attainments are such as may be reasonably required of candidates for admission to the College.

The course of instruction in the Institute of Agriculture at Hohenheim, Germany, pronouncad "the most complete agricultural school in Europe," is only two years. Such also is the extent of the course at Grignon, the best agricultural school in France. The course in the agricultural departments in the Queen's Colleges in Ireland extends through two years. A careful examination of any course of agricultural science will lead to the conclusion that students who are properly prepared to enter upon such course may easily complete it in two years. It is true that in some of the inferior agricultural schools in Europe, the course occupies three years, but those schools are designed for mere farm laborers, and their pupilage is a sort of apprenticeship to agriculture as a trade.

It seems quite certain that the great mass of those who might need and desire an agricultural education will not, at present, consent to spend more than two years in professional study. Could the course be reduced even to one year, hundreds would doubtless seek its advantages, who will not spend a longer time to gain them.

PREPARATORY COURSE.

It may be desirable, if the funds of the Institution will permit, to organize a preparatory course to occupy only one year. It must, however, be remembered that every year added thus to the general course will necessitate an increase of the teaching force, and, of course, an increase of the expense. The additional expense might, perhaps, be met by a small fee for tuition in this department.

The preparatory course should embrace the study of Rhetoric and Composition, of Algebra and plain Geometry, of Elementary Chemistry, and the elements of Natural Philosophy and Physical Geography, and Natural History. These studies can be mastered in a single school year, by those having an ordinary common school education, and who have reached the age of fifteen years. None should be admitted younger. They are all necessary to prepare the student to enter upon the proper agricultural course, and all candidates for that course should be required to pass a satisfactory examination in these as well as in the common English branches.—The Union Schools now generally established throughout the State, afford abundant facilities for preparation in these studies, and they are not unfrequently taught even in the common district schools.

THE AGRICULTURAL COURSE.

The Agricultural Course should properly embrace the following five departments:

1. The Department of Agricultural Chemistry.
2. The Department of Botany and Vegetable Physiology.
3. The Department of Zoology and Animal Physiology.
4. The Department of Civil and Rural Engineering.
5. The Department of Theory and Practice of Agriculture.

1. The Department of Agricultural Chemistry should embrace the study of the constituent elements and combinations of soils, manures, and animal and vegetable substance; the action of the imponderable agents, Heat, Light and Electricity, on soils and vegetation; the qualities and values of various kinds of food; the manufacture, preservation and use of the various fertilizers, together with practical exercises in chemical analysis. It should also embrace some instruction in Geology, Mineralogy and Meteorology, in the bearing of these sciences upon agriculture.

2. The Department of Botany and Vegetable Physiology should embrace the study of the structure and habits of both weeds and useful plants, cereals, grasses, fruit and forest trees, esculent roots; the laws of vegetable growth and culture, the various modes of propagation by seeds, budding grafting, &c.; the production and improvement of varieties; and the general values of fruits and of forest trees.

3. The Department of Zoology and Animal Physiology should embrace the study of comparative anatomy; the varieties, habits and diseases of domestic animals; with the values for draught, fattening, &c.; Zootechny, or the breeding, rearing, feeding, improving and training of animals; a knowledge of the noxious animals and insects which infest fields or crops; and a study of veterinary art.

4. The Department of Civil and Rural Engineering should embrace surveying, plain and topographic; leveling; construction of roads, bridges, walls and drains; the mensuration of solids, as heaps of stones or manure, stacks or mows of hay, bins of grain, contents of sacks or reservoirs, and of excavations and embankments; the plotting and laying out of fields, orchards and ornamental grounds; the mechanical powers and motors, with the application of forces for draught or support, and the strength of materials. It should embrace also, drawing, landscape and architectural, drawing of farm implements, animal forms, &c.

5. The Department of Agriculture should be under the charge of the President of the College, who will have the general management of both the Farm and School. It should devolve upon this Department to exhibit the practical application of the principles and truths taught by the other departments, in the plowing and preparation of soils, the use of manures, the planting and sowing of seed, the rotation, management and gathering of crops; the care, feeding, and working of stock; the management of the dairy; the poultry yards; the fattening pens and stables; the apiary; the grapery; the garden; the nursery; the orchard; and the general economy of the entire estate.

It should also embrace so much of Political Economy as may show the relations of agriculture to the other great departments of industry, with the general principles of the production, distribution, and exchange of wealth, the relations of labor and capital, and also some knowledge of the law of real estate, and the law of contracts. A course of lectures on practical agriculture should be given by the professor in the fields in the mode of clinical medical lectures.

To aid in this department, there should be employed a foreman of the Farm, and a foreman of the Garden, who should have the care and supervision of the groups of laborers in these departments. As the farm is developed, to these might be added a foreman of the Stables and Stock, and a foreman of the Nurseries and Orchards.

These *foremen* should be if possible chosen from the graduatesof the School, who might not only practically superintend and direct the labors of the field, but also render efficient aid as monitors in drilling the students on the lectures given by the President and professors. One might also be employed to give instruction in Book-Keeping.

SUPPLEMENTARY AND OPTIONAL COURSES.

Besides the preparatory and regular agricultural courses, described above, special classes in literature and general science might be organized, of those who wished to increase their general education while pursuing their professional studies. A study of the mechanic arts, and manufactures, of such classes at least as pertain most to agriculture, might also be allowed to some extent as it is in the European Agricultural schools, and workshops provided. It is however, questionable how far the teaching forces or the funds of the Institution should be largely diverted from their main objects for these subordinate and secondary purposes.

With the organization, thus briefly outlined, there would be needed a personal force of only seven men in the faculty, viz: a President, four Professors and two foremen or field tutors. The four Professorships now filled might, perhaps, with some change of functions, be transformed into the Professorships proposed. In the lack of graduates from whom to select, men of tolerable competency might be readily found to fill temporarily the posts of foremen. The student who has filled with considerable ability the post of overseer of the garden the present season, might prove eligible to that of Foreman of that department.

The question demands the serious consideration of the Board, whether the office of Steward should not be abolished, and the Boarding House rented to some competent person, who would agree to supply board at certain fixed rates, and to purchase at some equitable rate, such of the farm produce as might be needed in his department.

The adoption of this plan of organization might result in the departure of such students as are now there for merely academical study, but it would doubtless attract those who would be more legitimate students of an Agricultural College, and would make the Institution more fully realize the purpose of its establishment, and the fondly cherished hopes of the agricultural public in our own and other States. Instead of *jostling* in the race with other academical or collegiate institutions, and under disadvantages, because deprived of the privilege of teaching languages, and burdened with the mongrel mixture of professional with disciplinary studies, which must ever condemn it to the rank of a second rate school, it would rise to the dignity of a true school of art, and reign peerless in its sphere as the fostering guide of that grandest of all useful arts, the culture of the all-supporting soil. And how powerfully might an institution, thus organized promote this great farming interest! Its graduates would go forth as torch-bearers in the path of agricultural reform. And how broadly would the light created by this zealous and exclusive study of agricultural science, aided by the wisely-conducted experiments of a great model farm, shine forth over the broad farming interests of the State, making our fertile acres bloom with a more elegant as well as economical cultivation, and rich with the burden of a more abundant fruitage!

It is easy to predict, on the other hand, that unless this or some other radical change occurs in the character of the institution, it must prove sooner or later a pitiful failure.

If it is to remain a mere academic school, as it now is, with the costly advantages of a State farm attached, to furnish facilities for manual labor, and which parents seek as they seek any other high school, as a place where they may cheaply and conveniently educate their sons, the people of the State will repudiate it as a useless burden on the finances and a mere mockery of their purposes and hopes, and some future legislature will listen more favorably than the last to the proposition to sell it out at public auction.

Already a secret, or but half-expressed feeling of painful disappointment, lurks in the hearts of its early friends and founders—a feeling that may easily ripen into open hostility, should this Board fail in its obvious duty to carry out the true intent of the law.

Thus far we have been experimenting, and the farmers of the State and the friends of the Institution have watched our progress with a most charitable forbearance. Errors have doubtless been committed, such as would almost inevitably befall an enterprise, the pioneer of its kind. But even the mistakes may be made to minister to the final success if not persisted in. With the experience now gathered, we may take a long step forward, and assume at once and fully our destined character, as a purely Agricultural College. If when fully and fairly modeled after the law it shall prove a failure, the failure will no longer be the fault of the Board, but will be justly chargeable upon the error of the State in misunderstanding its own wants.

But it need not fail. A class embracing in its ranks nearly one-half of the entire industrial population of the State, and whose awakening interests in the scientific improvement of their great art evinces itself in the powerful societies and magnificent fairs now annually assembled in almost every county of the State, can surely support an Institution so needful to agricultural science and of so much promise to the entire farming interests. The evident delight with which the organization of this college was hailed in our sister states, and the lavish praise bestowed upon Michigan enterprise, in thus inaugurating this great work of agricultural education in America, afford no uncertain evidence that the public sentiment of the country counted the undertaking timely and feasible. The organization of similar institutions in New York, Pennsylvania, Iowa and other States, adds ample proof that their commendation was well considered and sincere, and should inspire us with fresh courage to go forward to a full realization of the enterprize so happily begun.

J. M. GREGORY,

Superintendent of Public Instruction and Secretary of the State Board of Education.

Lansing, Nov, 17, 1859.

RESOLUTIONS ADOPTED BY THE STATE BOARD OF EDUCATION, NOV. 17, 1859.

Resolved, That the views expressed by the Secretary in this report, this day submitted to us meet with the approbation of the Board.

Resolved, That the general plan of a course of study therein presented, embracing a preparatory course of one year, and a two years agricultural course be adopted.

Resolved, That the Faculty be requested to prepare a scheme in accordance with the course as thus defined and embracing departments prescribed in the Report, and present the same to the Board.

A Treatise on Fencing.

BY S. EDWARDS TODD, IN N. Y. STATE AGRICULTURAL SOCIETY'S TRANSACTIONS.

DISTRIBUTING RAILS FOR FENCE.

It is a very common thing, for many farmers, in hauling rails and stakes where a fence is to be made, to distribute them, as to number, entirely at random, without any calculation at all how many will be needed for a fence of a given number of rails high, and, therefore, in some places there are not half enough. Sometimes, there may be just enough to build the fence, but they have been distributed so unevenly that many of them must be carried too far. When a man is obliged to go twenty or thirty feet for every rail, it will take him twice as long to lay up a feuce as it would were the rails left within a few feet of the place where they will be needed. It is a very easy matter to distribute rails for a fence, so that there will be just enough to bnild it, and it argues a little stupidity and want of calculation, to see one distribute rails in such a manner, that after the fence is finished, there are several loads to haul away. That is all lost labor; and it will consume several hours to haul and unload, and reload and haul away, two or three loads of rails.

In distributing rails for a fence, in the first place set a few stakes where the fence is to be built, now calculate how many panels there will be in five or six rods. We will say there are thirty paces in six rods. If the foundation is not laid, the rails may be laid, for thirty paces or so, in a straight line, or zig zag, like a worm fence, and then, by counting the number of panels in thirty paces, and by multiplying the number of panels by the number of rails in one panel, we shall know how many rails are wanted in a distance of thirty paces. Now, let the number of rails required in thirty paces, be distributed close to the place where the fence is to be made, and put them in small piles, with no more than ten in a pile, so that they will be near at hand, and be well spread out, so that small rails can be selected, if necessary, without tumbling over half a load. Never leave them with nearly a load in a pile, or in the place where the fence is to be built, lest they have to be removed, nor a rod or two distant, for fear they may be in the way. Now, pace off thirty paces more—it can be done in less than one minute—and drop as many more rails, and in the same order, and proceed in this manner until a job is finished. When the foundation of the first rail is laid, it is a very easy matter to make calculations for hauling just enough to make a fence.

Rails of one kind of timber should always be left together, and rails of another kind of timber, unless they are equally durable, should be kept by themselves, because when oak and basswood are laid together the basswood will decay long before the oak, and the result will be the entire fence must be repaired; whereas, if the oak had been kept together and the basswood together, no part would need repairing but the basswood. For the same reason, new rails should aways be kept together, when repairing fence, and take old ones to supply the place of those which have decayed.

When one is hauling rails, which are to be laid in a fence, immediately, it is much quicker to take the rails from the wagon and lay them in the fence than to throw them on the ground and then pick them up again and lay them in fence.

When the stakes are to be hauled let them be placed near each joint of the fence, with one on each side of it, because it will save the time of picking them up. When the foundation is not laid, if we know how many panels there will be in a given distance, it is easy to calculate that two stakes will be required for each panel, whether the fence is to be zig zag or straight.

FENCE BLOCKS

Are a very important item in building fence. It is very poor policy to place rails on the ground or on perishable materials, which will soon let the fence down to the ground. Boulders, from ten to twenty-five inches in diameter, make the best blocks.—When one is a little too large, let a hole be dug a foot or so deep, and roll it in. When one is a little too small, put it on the top of a flat stone. A small pile of small stones of any kind, will make a very good block for a corner to rest on. When wood is used for blocks, always place the bark side down, if possible, because they will last many years longer than if the bark side was up. When a round stick is used for a block, let it be peeled, if practicable; but, if not, cut off a strip of bark, three or four inches wide, on one side, and lay that side up, and then, as it seasons, the bark will usually become loose, but if the bark be left on the top of blocks it will always hasten the decay. Sometimes a couple of good pieces of broken rails will make a very good fence block. Flat stones, a foot square, or more, laid on the top of a little mound of earth, or on the top of two or three sods, will make capital fence blocks. When one has a plenty of small stones, it is good policy to make a ridge of stone, a foot or so high, and lay the fence on top of it. This will answer both for a straight fence and for a zig zag fence. Where no stone can be found, and wooden blocks are scarce, make a corner with square rods and lay on a piece of board, or slab, or two or three short pieces of old rails. Let the fence be kept well up from the ground at all events. When a foundation corner is made of earth, or sods, the sides should be covered with sods, to prevent them from washing away in heavy showers.

MAKING A ZIG ZAG, OR WORM FENCE.

In making a zig zag fence of rails, there are two modes of laying the bottom rail, by stakes, which I shall lay down, in order to have the fence straight. And when a fence is to remain for a number of years, or is to be a permanent fence, if a man is mechanic enough to give the fence the necesary worm, he may lay the bottom rail by guess. But the beginner had better have some stakes to guide him; because if he does not he will be sure to give some parts of it much more worm, or crook, than is necessary, and give other parts so little worm that it will barely stand alone. When a fence has too much worm, or crook, it is a good fault, it will stand more firmly, but it requires more rails. But when it has but little worm, it requires less rails, and the first driving storm may throw it from its foundation and prostrate it.

The first step then, will be to set a number of small, thin stakes, six or seven feet high, in a line, where the middle of the fence is to be made. Now make a fence rule, which consists of a stick, either round or square, about seven feet in length, as large as a fork handle, and pointed at the lower end. If the ground be stony and hard, the lower end ought to fitted to an iron socket, pointed. Bore several half inch holes through it, for the rod, which should be made of a very tough piece of wood, about as large and elastic as a good whip stalk. This rod should be about three feet long, and then it may be graduated by making a mark for two feet three inches, six and nine inches. This rod should be merely pressed into a hole, without fastening it, so that when laying a foundation on very high or low blocks, it may be raised or lowered as may be necessary. Always work up hill in laying any kind of rail fence; when we begin at the botom of a declivity and work upwards, the rails will lie more level than the inclination of the ground, and if we work down a declivity the rails will be more inclined than the ground, and will not stand as firmly as if it were made by working up hill. When a string of fence extends over rolling or undulating land, the proper mode of making it is to lay the bottom rail the whole diitance, and then go back and change those corners in that part of the fence which was laid by beginning at the top of a declivity, so that in laying up more rails the operator can work up hill, both ways, from a valley. The next thing in order will be to decide upon

THE AMOUNT OF WORM, OR CROOK FOR A FENCE.

The length of rails must, usually, determine the amount of worm for a fence. Long rails require much more worm, or crook, than short ones, in order to have the corners of each kind of rails of the same angle.—

Suppose, for example, that rails are nine feet long, and we give the fence, which is made of them, three feet worm, *i. e* the fence will occupy, measuring across the fence, three feet of ground, from the centre of one joint to the other. Now, if rails are fourteen feet in length, in order to give the corners the same angle of the nine feet rails, we must give these rails a crook of four feet eight inches, measuring from the centre of one joint to a point opposite to it, in a line with the joints on the other side of the fence. Where fence is to be staked, the rule for the amount of worm, which is most commonly adopted, is, that it be equal to one-third the length of the rails. This is enough for any fence that is well staked, and where a fence will not be exposed to furious winds, it may answer just as good a purpose to give it less than one-third the length of the rails. But where a fence is not to be staked and the rails are rather light, the worm should be increased, so as to be at least five-twelfths the length of the rails, and sometimes even more than this.

If the stakes are all stuck in a line, plant the fence rule in a line with the stakes, where we are to commence laying the foundation, having the rod standing at a right angle to the right or left of the line, which would cut the fence rule staff and the stakes. If the fence is to have a worm of four feet, which is about right for rails twelve feet in length, place a fence block under the rod, so that the centre of the block will be just under the two feet mark from the rule staff.—Lay on a good straight rail and carry the rule forward, and plant it down in a line with the stakes, nearly opposite the other end of the rail, with the rod extending in the opposite direction. Place a block beneath the two feet mark, on the rod, and lay on the end of the first rail, and then lay on another rail, and carry the rule along, and lay another block in a line with the first block, and so on.

Many fence makers, in laying up rails, have the ends of the rails extend beyond the points of conjunction at the corners about one foot.

But this practice uses up more rails than is necessary to build a fence a given number of rods in length; and, besides, when the ends of the rails extend beyond the joint, from ten to twelve inches, a fence does not look as well, and is far more liable to be thrown down by the whippletrees catching it, or cattle rubbing against it. If the ends of the rails extend three or four inches beyond the joint, a fence is no more liable to be thrown down than if the same rails extended a foot beyond the joint. It is very important that all the rails should lie, at the joints, one directly above the other. The smallest rails should, always, be laid at the bottom of the fence, and the largest ones, if there be any difference in the size of them, should be laid on the top, as heavy rails on the top renders a fence, whether it is staked or not, much more substantial than if the large rails were in the middle of the panels, with small ones on the top. If there should be any difference in the size of the ends of the rails the large ends should be laid at the lowest corner.—When there are many crooked rails, make a panel or two of crooked rails, placing those together that are of nearly a uniform crook. If there are but few crooked ones reserve them for the top of the fence. After a fence is laid three or four rails high, if flat stones, three or four inches thick, are at hand, it is a good practice to lay one on each joint, as they will make the fence about one rail higher, and at the same time it will subserve just as good a purpose as if a rail was in the place of the stones. And another advantage is, flat stones laid on the joints will turn the water from the joints and render them more durable, as rails often rot at the joints, in consequence of the wet finding its way there and not drying out. A large flat block of wood will answer for this purpose, in the absence of flat stone. Roundish stone in such a place would be liable to throw the fence down.—Low corners of a fence may be brought up level with the others by laying on a flat stone between every two rails.

Another mode of laying the foundation of a worm fence, which some people prefer, to laying with a fence rule, is to set two rows of small stakes the whole distance where the fence is to be built, with the rows just as many feet apart; if the worm is five feet, set the rows of stakes five feet apart. Now lay a fence block in range with one of the rows of stakes, and lay on a rail, diagonally, from one row to the other; then lay another fence block in range with the other row, under the other end of the rail, and so on.—In order to ascertain whether the block is in range with the stakes, stand in range with the stakes, and set a stick, about as large as a common fork handle, perpendicularly, on the block before you, and if, when it stands in the middle of the block, it is in range with the stakes, the block is in the proper place. by placing the trying stake, or stick, in range with the rows, the workman will readily perceive which way the block, or corner, must be moved, in order to bring the corner in range with the stakes.

There are other modes of laying the foundation by stakes, but they are so inferior to those already mentioned that we shall omit to notice them.

A common worm fence may be staked and capped, staked and ridered, staked and wired, locked and ridered; or it may merely be laid up, without either stakes or riders, or locks, but whichever mode is adopted, the operation of laying the foundation, and of building the fence, several rails high, is the same in each kind of fence, with the exception, that a staked fence does not require as much worm as one that is not staked.

I may be allowed to remark here, that but few men know how to dig a stake hole correctly. We often see the man stand facing the fence when digging the holes; this is decidedly wrong, because when standing in this position, the earth, which should all remain unbroken and solid, to keep the stakes from tipping up when the riders are laid on, is all broken up, and the stakes tip up very readily; but if the digger will stand with his side to the fence, and dig a long deep hole, leaving an unbroken bank for the end of the stake to raise against, it will be almost impossible to make the ends tip up by laying on any amount of heavy riders. It matters not how long the hole is dug in the direction of the length of the fence, but it should be dug to fit the stake. It should slant in the direction of the stakes when the riders are on the fence, and be just wide enough to admit the end of a stake when it is thrust into the hole with a man's whole force. When the stakes are large, and the rails large also, the stakes must be set more straight up and down, they may be in the correct position for a small rail, but if the riders were large there would be too much space between the rails and riders Two riders are usually laid in such a fence, although many farmers use but one.—The under rider is laid with one end in a pair of stakes, and the other end under the next pair of stakes. The upper riders, of course, are laid in the stakes, with both ends above them.

The Potato.

The following method for the protection of the potato plant against disease is proposed by Dr. Klotzsch, to the Government of Prussia:

"The potato plant requires more care than is usually devoted to it. Hitherto, the whole cultivation consisted in clearing off weeds, and hoeing the earth round the stems. Both of these measures are indeed necessary, but they are not alone sufficient; for the plant is cultivated, not on account of its fruit, but for the sake of its tubers, and our treatment should be modified accordingly.

The chief points to be attended to, with a view to the attainment of the object, viz., the increase of tubers, are—1. To increase the power in the roots; and 2. To check the transformation occurring in the leaf.

We attain both these ends, simultaneously, if, in the fifth, sixth and seventh weeks, after setting the tubers, and in the fourth and fifth weeks of planting our germs, furnished with roots, or at a time when the plants reach the hight of six or nine inches above the soil, we pinch off the extreme points of the branches or twigs, to the extent of half an inch downward, and repeat this on every branch or twig in the tenth and eleventh weeks, no matter at what time of the day. The consequence of this check to the development of the stem and branches is a stimulus to the nutrient matters in the plant, in the direction both of the roots and stalks to such a degree, that the matters prepared by the action of these parts are increased, and applied to the formation of tubers, while at the same time the direct action of the sun's rays on the soil is prevented by the thick foliage, and thus the drying up of the soil and its injurious consequences are avoided.

The difference between rows treated by Dr. Klotzsch, and those not treated, became so striking that it astonished all the work people in the neighborhood—Prussia—who were never tired of inquiring the cause. The stalks of the rows left to themselves were all partly dried, partly dead. On the contrary, the rows treated as above were luxuriant and in full vigor, the plants bushy, the foliage thick, the leaves large and dark green, so that most people supposed they had been later planted. Should any one hesitate on account of the trouble of the method recommended, which can be performed by children, we would remind him that the field planted with potatoes is capable of supplying food to twice as many persons as when employed to grow wheat."

Make Farm Labor Fashionable.

At the base of the prosperity of any people lies this great principle—make farm labor fashionable at home. Educate, instruct, encourage, and offer all the incentives you can offer, to give interest and dignity to labor at home. Enlist the heart and the intellect of the family in the support of a domestic system that will make labor attractive at the homestead. By the means of the powerful influences of early home education, endeavor to invest practical labor with an interest that will cheer the heart of each member of the family, and thereby you will give to your household the grace, peace, refinement and attraction which God designed a home to possess.

The truth is, we must talk more, think more, work more, and act more in reference to questions in relation to home.

The training and improvement of the physical, intellectual, social, and moral powers and sentiments of the youth of our country, require something more than the schoolhouse, academy, college, and university. The young mind should receive judicious training in the field, in the garden, in the barn, in the workshop, in the parlor, in the kitchen—in a word, around the hearthstone at home.

Whatever intellectual attainments your son may have acquired, he is unfit to go forth into society if he has not had thrown around him the genial and purifying influences of the parents, sisters, brothers, and the man-saving influence of the family circle. There can be no love of country where there is no love of home. Patriotism, true and genuine, the only kind worthy of the name, derives its mighty strength from fountains that gush out around the hearthstone; and those who forget to cherish the household interests will soon learn to look with indifference upon the interests of their common country.

We must cultivate the roots—not the tops. We must make family government, the school the farm, the church, the shop, the agricultural fairs, the laboratories of our future greatness. We must educate our sons to be farmers, artisans architects, engineers, geologists, botanists, chemists, in a word, practical men. Their eyes must be turned from Washington to their States, counties, townships, districts, home. This is true patriotism; and the only patriotism that will perpetually preserve the nation.—*Gov. Wright.*

FARM MISCELLANEA.

Economy Illustrated.

A writer in the *Farmer and Planter*, published at Columbia, S. C., illustrates a certain sort of economy in farming as follows:—

I have seen, frequently, able-bodied negroes hoeing grassy pieces of ground with just half a hoe, plowing with grapevine lines and hickory withe traces. As a matter of course, it gives the horse ample time to blow; for every time the plow strikes a stump or a root away goes the gearing, and away hies the plowman to the woods to skin another sapling! Still this is economy, they say. They have no harness maker's bills to pay, at all events.

"Again, in the matter of stock raising, I think much more economy must be used than is generally practiced by a great many. I have often wondered that some of our most intelligent planters had never learned the great value of housing stock of various kinds in the hard spells of weather. We believe the most of them do make out to pen their horse-flesh under some kind of shelter, and frequently it happens that's a poor sort of make-shift. But the fewest number of them ever seem to give their cows, or sheep, or swine a passing thought—as if the creatures could not appreciate a good shelter and a warm bed. We have frequently been shocked, in riding through the country, to have seen cattle exposed to sleets and snows, covered with icicles half a foot long; and, not unfrequently, you will hear their owners complaining of the large quantities of food they destroy, in comparison with the milk they give—and, at the same time, their very fountains are frozen within them; and by the time spring rolls around, it will take two of them to make a shadow, or you will hear the milkmaid halloo for Dick, Tom, or Harry, to come and prop up old muley 'agin' the fence corner, while she exhausts her bag of the blue contents, that will require two skimmings with a spoon, and one with a feather, ere she can procure cream enough for a cup of coffee."

Prince Albert Potatoes.

We tried a small experiment with this variety the present season, by planting one-sixth of an acre, on an inverted sod, prepared afterwards by Shares' Harrow. No extra attention was given—the seed, after dropping 20 inches apart in the row, was covered with a plow—the whole amount of cultivation not amounting to half a day's labor, and the digging, with the assistance of Allen's potato plow, and drawing into the cellar, requiring about two-thirds of a day. The produce was a little over *twenty-five bushels*, or at the rate of about *four hundred bushels per acre.* About two dozen potatoes were found affected more or less with the rot, in a region where more than half of many crops of other varieties were spoiled by this malady. In another piece of about the same size, also planted with the Prince Albert, and yielding a little less, only two rotted tubers were found.—*Country Gent.*

Pea-Vine Clover.

This is the name given to a variety of the large Northern clover grown by Charles H. Bartlett of Freedom, Illinois. Levi Bartlett of Warner, New Hampshire writes to the *Country Gentleman*, that he has tried it with spring wheat and oats, having sown it in 1857, and that in 1859, it produced an "enormous crop." Some of the plants are over five feet in length.

The Potato Rot.

This pest does not seem to have left the country yet. Its ravages are complained of in New Jersey as being exceedingly severe having destroyed the entire crop in the middle and upper districts of that state. One grower of this crop is reported to have suffered to the extent of $10,000.

The Garden & Orchard.

Visit with a Jackson Horticulturist.

While waiting for the cars at Jackson, recently, the writer availed himself of a few minutes spare time to make a hasty call upon Mr. S. O. Knapp, of that place, well known as an intelligent and successful Horticulturist. While looking about his orchard, we were shown trees, and also the fruit of an apple, received from western New York, under the name of Flower of Genesee. This is a fruit of merely local celebrity, as it does not appear in the books or Periodicals of the day. It is a greenish yellow, medium sized fruit, somewhat conical in form, juicy, tender and almost melting, of agreeable flavor, but lacking richness. Its great recommendation is that it matures early enough for late fall use, while it retains its juice and freshness till March. The tree appears to be vigorous and hardy.

Notwithstanding the unfavorable season, Mr. Knapp has been favored with a fine crop of grapes the past season. Among the varieties in bearing may be found Isabella, Diana and Concord. The Diana he finds to be of an excellent quality, although he complains that the vine lacks vigor,—a fault which is believed to be unusual with this variety.—Concord has also fruited here for several seasons, and is found to be less fine than Isabella, and but a few days earlier; while the berries drop from the branch badly, if it is kept much beyond maturity. This variety has been fully tested at Detroit, where it appears to be liable to none of these objections. Indeed, the discrepancy is so great as to induce a suspicion of the correctness of Mr. Knapp's plants, especially as many of the most intelligent cultivators at Boston, Cincinnati, St. Louis, and other places, agree in placing it above the Isabella in quality, while, at the the same time, it is decidedly earlier.

This gentleman is doing considerable with plums, and seems to be eminently successful with them. His soil contains an admixture of clay, which is well adapted to this fruit.—His trees seem to have entirely escaped the leaf blight, so prevalent among growers of this fruit, and which is so fatal to the health of the trees. He has practiced the "Matthews remedy" for the curculio, which he deems reliable only to a limited extent, on his soil. He, therefore, relies, mainly on the jarring process, which he finds to be always effectual, when perseveringly applied. For the encouragement of those disposed to embark in the cultivation of this fruit, we would say that this gentleman appears to have found it highly profitable, and that his success is obviously due to a judicious selection of soil, thorough culture, high manuring, and a persistent and untiring crusade against its insidious and industrious little enemy, during the entire period of his operations.

Mr. Knapp also succeeded finely in the cultivation of Pears, both as dwarfs and standards; which are cultivated, indiscriminately, in the form characterized by Barry's "Fruit Garden" as Dwarf Standards, except that they are generally branched within a foot of the ground. As a general thing, his trees, both Dwarf and Standard, are marvels of early fruitfulness, health and vigor, and the believer in Dwarfs will find, here, many things to strengthen his belief in their health and longevity, and even in their profit, where an appreciative market is near at hand. We found him employed in the preparation of an additional piece of ground, to be planted with this fruit the coming spring.

Several years since, this gentleman, while visiting the northern part of our State, availed himself of the opportunity to secure a quantity of seedling evergreens in variety.—These he carefully planted in nursery. They have since then been frequently transplanted, and many of them used in the ornamenting of his grounds. To satisfy himself as to the best season for transplanting them, he has done so at all seasons, and with tolerable success; but, as the result of his experience, he prefers the early spring to all other seasons. In this he is at issue with many intelligent planters, who recommend the month of June, or soon after the commencement of the new growth.

T. T. LYON.

Plymouth, November 21st, 1859.

The Vicar of Winkfield Pear.

W. R. Coppock, of Buffalo, noticing this pear in the November Horticulturist, thus details how he has been able to make it edible:

"I have made a great discovery in ripening this pear, and desire to chronicle the event. For years I have grown in considerable quantities the Vicar, and never, until the present season, have I succeeded in ripening them so that they were any more than barely edible, and such has been the experience of our neighborhood.

Nem. Con.—Last season, I took a different method, and from the first to the middle of December, they were in eating, and a truly delicious pear they are. It has given me especial pleasure to introduce them among our 'coterie,' who pronounce them excellent, more than *good*—fine to *best*. My trees were excessively loaded; fruit very uniform in size, which was good. The picking was deferred as late as prudence would permit. They were then carefully taken from the trees, and spread upon a blanket in a cold north room, kept dark. Each layer was again similarly covered until all were so disposed of. Then they went through the sweating process, and began to get a creamy, yellow tinge—when such as were wanted for use were put into a pine closet kept near to the kitchen stove. Our *cook* keeps up an intolerable heat from early morn till night, and this *lucky* incidence has give a maturation to the Vicar before to me unknown. A week to ten or twelve days in this temperature fully ripens them. They color beautifully; many have a beautiful dash, or carmine cheek. They are no longer the coarse, gritty, astringent fruit, as ripened in a cool medium—but melting, buttery, with a delightful aroma, and a much superior pear to the Glout Morceau in its best state.

No pear has given me so much concern as this. Its fine, strong, elegant growth, and universal bearing, has given us a large stock of fruit annually, for which there was but little demand, and that for cooking only.—Now, with my new arrangement, and the *cook's* aid, we shall hsve no further trouble with the Vicar of Winkfield."

The Science of Gardening.

THE LEAVES.

(Continued from page 363.)

The *leaves* are highly vascular organs, in which are performed some of the most important functions of a plant. They are very general, but not absolutely necessary organs, since the branches sometimes perform their offices; such plants, however, as naturally possess them are destroyed or greatly injured by being deprived of them. The duration of a leaf is, in general, but for a year, though in some plants, they survive for twice or thrice that period. These organs are generally of a green color. Light seems to have a powerful influence in causing this; since, if kept in the dark, they become a pale yellow, or even white hue, unless uncombined hydrogen is present, in which case they retain their verdure though the light be absent. Hence their blanching would seem to arise from their being unable to obtain this gas, under ordinary circumstances, except when light is present. Now, the only source from which they can obtain hydrogen is by decomposing water; and how light assists in the decomposition may perhaps be explained by the disoxygenizing power with which it is gifted. The violet rays of the spectrum have this power in the greatest degree; and Sennebier has ascertained by experiment that those rays have the greatest influence in producing the green color of plants.

Sennebier has observed that, when plants are made to vegetate in the dark, their blanching is much diminished by mixing a little hydrogen gas with the air that surrounds them. Ingenhousz had already remarked that when a little hydrogen gas is added to the air in which plants vegetate, even in the light, it renders their verdure deeper; and he seems to think, also, that he has proved by experiments that plants absorb hydrogen gas when so circumstanced. M. Humboldt has observed that the *Poa annua* and *compressa, Plantago lanceolata, Trifolium arvense, Cheiranthus cheiri, Lichen verticillatus*, and several other plants that grow in the galleries of mines, retain their green color even in the dark, and that in these cases the air around them contains a quantity of hydrogen gas. This philosopher concludes, from his observation, that the white color of blanched plants is occasioned by their retaining an unusual proportion of oxygen, and that this is prevented by surrounding them with hydrogen gas. This may, perhaps, be true in certain cases; but the experiments of Mr. Gough are sufficient to prove that the retention of oxygen is not the only difference between green and blanched plants.

The green coloring matter of plants has been thown by Rouelle to be of a resinous nature. From this, and from the circumstance of its being formed only in the light, Berthollet has inferred that the leaves of plants have the property of decomposing water as well as carbonic acid when exposed to the light of the sun. The oxygen emitted, according to him, is derived partly from the decomposed carbonic acid, and partly from the water, while the carbon and hydrogen enter into the composition of the inflammable parts of the plant. This ingenious theory, though sufficiently probable, is not susceptible of direct proof. From the experiments of Saussure we learn that when plants are made to vegetate in pure water, in atmospheres destitute of carbonic acid gas, the quantity of their fixed matter does not increase; but when their atmospheres contain this acid gas the increase of weight which they receive is considerably greater than can be accounted for by the carbon and oxygen derived from the carbonic acid absorbed.—Hence it is clear that a portion of the water must enter into their composition. It is more likely that the elements of this portion arrange themselves in a different way than that they still continue in a state of water. These facts certainly strengthen the hypothesis of Berthollet. Indeed, if we consider the great quantity of hydrogen contained in plants, it is difficult to conceive how they should obtain it, provided the water which they absorb does not contribute to furnish it.—*Thomson's Vegetable Chemistry.*

When the leaves are of any other hue than green they are said to be colored. This variegation is often considered to be a symptom either of tenderness or debility; and it is certain, when the leaves of a plant become generally white, that that individual is seldom long-lived. Mr. Knight, however, has demonstrated that variegation is not a certain indication of a deficiency of hardihood.

All organs exhibiting or assuming a green color are found to be capable of decomposing the carbonic acid of the sap or of the air when exposed to the action of solar light.—In this operation the oxygen of the acid is exhaled into the atmosphere, and its carbon fixed in the vegetable tissue. Whence it seems to follow that the green color of the leaves is owing to the fixation of carbon; for where the decomposition of carbonic acid is not going on the organ remains colorless.—The brightness of the green seems to depend upon the degree of light to which the organ is exposed; and yet solar light is not indispensable. De Candolle gave the green color to some plants of *Lepidium sativum* merely by the light of a few Argand lamps; but they did not give out oxygen when placed in water.

Still the deposition of carbon caused by the action of solar light does not affect the membranous tissue. Still this tissue retains its original color and transparency, so that it is only the chromule which assumes the green color. But how does carbon, which is black, yield a color which is green? Sennebier solved the problem as follows:—Carbon is, in strict propiety of speech not a black, but a very deep blue; and vegetable tissue is not absolutely a pure white but rather a pale yellow. Hence, the green is formed by the mixture of a yellow and blue. This explication, *quoique un peu mecanique*, De Candolle regards as likely to be the true one. Yet we cannot help entertaining some doubts as to its validity. Surely the membranous tissue of many plants assuming a green color has nothing in it of a yellow. But wherever we turn to look for an explication there is doubt; and the solution of the problem may be said to be a chemical puzzle. One attributes it to the presence of an oxide of iron; another to the predominance of an alkali; and neither solution is satisfactory. Yet plants placed in the dark do not lose their green color if the atmosphere in which they grow contains a certain quantity of hydrogen or of azote. Humboldt found the leaves of *Poa annua* and *Plantago lanceolata* still green though growing in the galleries of the mines of Freyberg. It should be recollected, however, that they must have been occasionally exposed to the light of the miners' lamps.—Leaves, bracts, calices, ovaries, are the organs that are most generally green; though you may find exceptions to the rule, both in organs which it includes and in organs which it excludes. The bracts of *Bartsia coccinea* are scarlet, and the embryo of the Mistletoe is green.—*Keith's Lexicon.*

The functions of the leaves appear to be a combination of those of the lungs and stomach of animals; they not only modify the size of the parent plant, but they also absorb nourishment from the atmosphere. The sap, after elaboration in these organs, differs in every plant, though as far as experiments have been tried it appears to be nearly the same in all vegetables when it first arrives to them. The power of a leaf to generate sap is in proportion to its area of surface, exposure to the light, and congenial situation.—*J. in Cottage Gardener.*

(To be continued.)

Italian Bees.

We learn from Richard Colvin that he has lately received from Europe several swarms of Italian bees. It seems that "blood will tell" as well in bees as in other live stock, and we are glad to learn that Colvin is determined to have the best breed as well as the best hive. The following history of the Italian bee is from a letter written by Samuel Wagner of Pa. to Rev. L. L. Langstroth:

The first account we have of the Italian bees, as a distinct race or variety, is that given by Capt. Baldenstein in the Bienenzeitung, No. 4, 1848. Being stationed in Italy during part of the Napoleonic wars, he noticed that the bees in the Lombardo-Venitian district of Valtelin, and on the borders of Lake Como, differed in color from the common kind, and seemed to be more industrious. At the close of the war, he retired from the army and returned to his ancestral castle on the Rhœtian Alps, in Switzerland; and to occupy his leisure, had recourse to bee-culture, which had been his favorite hobby in earlier years. While studying the natural history, habits and instincts of these insects, he remembered what he had observed in Italy, and resolved to procure a colony from that country. Accordingly he sent two men thither, who purchased one, and carried it over the mountain to his residence, in September, 1843. About the same time he became a subscriber of the Bienenzeitung, and speedily took a lively interest in the discussions then carried on in that journal, respecting the impregnation of the queen, the sex and design of the drones, the age to which the queen and the workers respectively attain, etc., ect. This induced him to communicate to the Bienenzeitung his observations on the Italian bees, with some suggestions as to the manner in which they might be employed to determine some of the points in dispute. His communication did not, at the time, attract the attention that it deserved, though it led Dzierzon to inquire whether the cells and combs built by the Italian bees differed in any respect from those constructed by the common kind. Baldenstein replied that there was no perceptible difference; that he had frequently interchanged the combs, and never noticed that it caused any difference in either case, the cells of both being apparently of the same diameter and depth.

The controversy concerning the abovementioned points continued to be waged with unabated ardor, and the ablest Apiarians of Germany engaged in it pro and con, without any satisfactory results; at least, not any in which all felt willing to concur. In this state of affairs, Baldenstein sent another communication to the Bienenzeitung, (No. 11, 1851,) in which he adverts to his previous article, and expresses the opinion that no mode of determining those important questions could be so practicable and reliable as the employment of the Italian bee for that purpose. He then states that for seven years he had possessed one colony, and only one, of the genuine Italian stock, which had with great difficulty, or rather by fortunate chance, been preserved pure among a large number of bastard and common colonies. In all that time, he had not, despite of every precaution he could use, succeeded in keeping his young Italian queens from *mesalliance* with common drones, and consequently producing a bastard progeny.

His Italian colony retained, till May, 1847, the old queen which had been imported from Italy. She was then at least four years old, and had never failed to produce genuine Italian brood. In may, 1847, the colony began to show signs of weakness, but suddenly recovered in the following month; and it was evident that it had supplied itself with a new queen, which had fortunately been impregnated by an Italian drone, as she produced genuine or pure brood. On the 15th of May, 1848, this queen issued with a swarm, and he hoped that, as he had placed the parent hive in a rather isolated location, her successor would be impregnated by an Italian drone.—But in this he was doomed to disappointment; she produced a bastard progeny, while the emigrant queen produced genuine brood, as before. Similar disappointments awaited him from year to year, till the date of his second communication, (June, 1851,) when he possessed still only one colony of the pure stock.

Among the points which he considered as definitely established by his observations on the Italian bee, are the following:

1. The queen, if healthy, retains her proper fertility at least three or four years.

2. The Italian bee is more industrious, and the queen more prolific than the common kind; because, in a most unfavorable year, when other colonies produced few swarms, and little honey, his Italian colony produced three swarms, which filled their hives respectively with comb, and together with the parent stock, laid up ample stores for winter: the latter yielding besides a top box well filled with honey. The three young colonies were among the best in the apiary.

3. The workers do not, at most, live longer than one year; for though the bees and brood in the parent hive, when the first swarm and old queen left, were of the Italian stock exclusively, few of this kind remained in the fall, and none survived the winter.

4. The young queen is impregnated soon after she is established in a colony, and continues fertile during life. Were this not so, the genuine queens would not have continued to produce pure brood during those seven successive years.

5. The queen leaves the hive to meet the drones. If not, it would scarcely have happened that all the young queens bred in those seven years, with only one exception, were impregnated by common drones and produced bastard progeny.

6. The old queen regularly leaves with the first swarm, or the genuine Italian brood would not invariably have been the product of the swarm, but occasionally, at least, of the parent colony, which never happened in all that time.

The observations and inferences impelled Dzierzon to make an effort to procure the Italian bee; and by the aid of the Austrian Agricultural Society at Vienna, he succeeded in obtaining a colony from Mira, near Venice. Meanwhile we have no further account of them in the Bienenzeitung, except that, in No. 1, 1853, Baldenstein, in reply to an enquiry from Dzierzon, stated that "the Italian bee is found immediately beyond the Alps, in the southern valleys of the Grisons bordering on Italy, in Merox, in Pregell, in Prochiavo, and in the entire Lombardo-Venitian district of the Valtelin, in the district of Chiavenna, and on the borders of Lake Como."

He does not doubt that it occurs also in other parts of Italy, but names those as places where he observed it himself, and is certain it may be found.

Dzierzon obtained his Italian colony, Feb. 19, 1853, and on the following day transferred the combs and bees into one of his own hives. When the season opened, he placed the hive on a stand in his apiary, and screwed it fast, lest it be stolen. He never moved it during the ensuing summer; but took from it combs with worker and drone brood, at regular intervals, supplying their place with empty combs. In this way he succeeded in rearing about fifty young queens, about one-half of which were impregnated by Italian drones, and produced genuine brood. The other half produced a bastard progeny. He continued thus to multiply queens by the removal of brood, till several of his artificial colonies suddenly killed off their drones, and the original stock did so likewise on the 25th of June. The bees of the original colony labored assiduously, but gradually became less diligent, till when the buckwheat came into blossom, it was surpassed in industry by many colonies of the common bees. But as young bees continued to make their appearance, he felt satisfied that the colony was in a healthy condition. Later in the season, he unfastened the hive, preparatory to putting it in winter quarters, and on attempting to lift it, found he was scarcely able to move it. He now discovered why it had so greatly fallen behind the other colonies in industry. Having early rid itself of drones, (as probably is done instinctively in Italy,) it had, in consequence of its extraordinary activity, filled all the cells with honey in a very short time, and was thenceforward doomed to involuntary idleness. It had attained a weight which scarcely any of his colonies reached in the summer of 1846, when pasturage was so superabundant; whereas, the summer of 1853 was certainly a very ordinary one in this respect.

Select list of Pears.

The editor of the *Rural Register*, J. J. Thomas, having requested P. Barry and G. Ellwanger of the Mount Hope Nurseries, Rochester, to furnish him with a list from each of the varieties of the best new pears, that they had found the most valuable, these gentlemen gave the following, which the *Register* says were sent forward without consultation with each other, and which will be seen to coincide remarkably. The list by Mr. Barry is:

Three best: Beurre d'Anjou, Beurre Superfin, Sheldon; *Six Best*: Add to the above Beurre Hardy, Beurre Clairgeau, and Howell; *Twelve best*: Add to them Brandywine, Beurre Gifford, Beurre Langelier, Nouveau Poiteau, Rostizier and Doyenne d'Alencon.

The list of G. Ellwanger only differed from the above, by the substitution of the Beurre Waterloo and the Beurre gris d'Hiver Nouveau for Rostizer and Doyenne d'Alencon.

Mr. Barry adds by way of remark: "As to the merits of these new sorts of pears named above, as compared with Bartlett, Flemish Beauty, Louise Bonne, Belle Lucrative, &c., we would only say that B. d'Anjou, B. Superfin, B. Hardy, and Sheldon are all superior in *quality* to the old ones named; but for a small collection, we would still prefer the old ones. The Louise Bonne is one of the most valuable of all, considering how hardy, productive and sure it is, both on pear and quince. Howell, in growth, productiveness, and quality, is about a match for Flemish Beauty, but is not so showy. No one variety is so much sought for yet as the Bartlett—this is the experience of nearly all nurserymen."

Stems of Trees.

AN ESSAY,

By G. A. Dickey, of Marshall, Student at Michigan State Agricultural College.

Concluded from page 371.

The medullary rays consist wholly of cellular tissue; in young stems, the cells of which they are composed, present the appearance of bricks in a wall; but in old stems they are only seen as lines running "directly away" from the pith to the bark. Some authors make two sorts of medullary rays; "the large ones, or those running from the pith to the bark; and small ones, found in many stems, and not keeping up a connection through the centre to the circumference, but limited in their extent." In some Exogens the medullary rays are remarkably well developed, and very numerous, being, indeed, in some, so numerous as to admit of but little else being seen; in others, they are few in number and scarcely discernable. "This tissue constitutes the 'silver grain' of maple, and other trees, when cut in the direction from the pith to the bark."

It has been supposed that the age of Exogenous stems might be calculated from the number of the layers of wood; but it has been found by observation, that this cannot be done. To give the reasons would employ too much space.

Although the Exogens generally agree in presenting a pith, a medullary sheath, a layer of vascular and porous tissue, a layer of woody fibre, a bark, and medullary rays, for each year, yet some differ, and present peculiarities of structure worthy of note: e. g., woody fibre is found in the pith of the Mirabilis; and in the pith of the Nepenthes we find spiral vessels; in the latter stem there are no different woody layers, no medullary rays, and spiral vessels are found close to a modified bark. "In the Peppers which are not arborescent the wood exists as scattered, or separate bundles of tissue for the whole period of life of the plant; whilst in those that are arborescent, according to Meyen, during the second year of growth, a complete ring of wood is formed at the circumference of the stem, but within which the wood exists as separate bundles as before." The presence of a central pith, and a greater degree of hardness, in the wood next the centre, than in the circumference, are the unfailing signs by which we may conclude an exogenous growth; hence, in examining a stem, if it agrees with the above rule, we may know it to be an Exogen, although it may present other characteristics which are not true of the exogenous stem in general.

The Endogens are mainly found in the tropics; they are generally large trees, and have few, or no branches low down; their trunks are almost always covered with creeping plants, and thus they present to the view one huge mass of foliage.

The endogenous, like the exogenous, is, in its first stages of development, wholly cellular; as it continues to grow fibre, vascular bundles are developed; and these consist of woody fibres, spiral, dotted, and lactiferous vessels; the whole is covered with an epidermis, or modified bark, but which is not a true bark, as it is not easily separable from the wood. New fibro-vascular bundles are developed every year, and these are always produced inside the old ones, and thus push the latter out; so that the endogen is truly, as its name implies, an inside grower. The fibro-vascular bundles, containing woody fibre, which are found next the epidermis, being the oldest, the endogenous stem is hardest on the external surface, whilst the inside is soft and yielding. Here we see an evident design of our all wise Creator; the endogens only attain a perfect development in tropical climes; and there, huge parasites, and other creeping plants, cling to them for support, almost from the very beginning of their existence; and if they were soft and yielding on the external surface; as the exogens are, they would be literally crushed to death; but, as it is, wind round them as they may, the parasite can make no impression on them, but the huge endogens rear up their heads as proud and noble as if there were no parasites.

The outer cuticular covering, however, is generally yielding, and gives way to the internal pressure, so that the stems may enlarge and increase in diameter. In the Palms this is not the case: the cuticular covering indurates in a few years, and this is the reason why the Palms, after they have attained a certain growth, never increase in diameter, but die, as soon as the inside becomes filled up by the successive deposition of fibro-vascular bundles.

On recapitulation, we find that the endogenous stem, contains only cellular tissue, fibro-vascular tissue, and woody fibre; hence we find that this stem differs from the exogenous in having no proper bark, no regular layers of woody fibre and vascular tissue, no medullary sheath, no pith, no medullary rays, and in being hardest on the external surface; another distinction between endogens and exogens is, that the leaves of the former are characterized by parallel venation, while those of the latter are netted-veined.

I have said that the endogen is mainly found in the tropics; this is true enough, and yet we have endogens in many garden vegetables, and in many common shrubs. The Indian corn is an endogen; and, if a transverse section of a corn stalk be examined by the aid of a microscope, it will exhibit the structure of the endogen as I have described it. The Rattan cane is noted for the denseness of its woody fibre; some endogens, e. g., the grasses, are hollow, the pith having been ruptured by the too rapid growth of the surrounding parts.

The Acrogenous stem resembles, somewhat, some of the endogenous, being small of diameter, unbranched and straight; the foliage is found only at the summit, and consists of leaves from ten to twelve feet in length.—The stem grows by the union of the petioles of the leaves; and, hence, it is truly a summit grower.

From its peculiar appearance, we should always be enabled to recognize the Acrogen; but, if we were the least in doubt, an examination with the microscope would settle all difficulties. A transverse section exhibits only cellular tissue, interspersed near the periphery of the circumference, with fibro-vascular bundles. The external cuticular covering is generally irregular, having been indented by the bases of the leaves, which remain a long time on the stem. The fibro-vascular bundles are composed of an interior of pale scalariform vessels, and an exterior of very dense woody fibre.

The tree ferns are the principal acrogens now known, and these are fast disappearing. We have, indeed, acrogens in our common brakes, the true stems of which are below the ground; but, poor representations, are these, of those gigantic ferns which once covered the earth, and the remains of which are now found in the immense coal beds of this and the mother country.

Of all the stems which I have attempted to describe this evening, the exogenous is by far the most useful to man; and, of all the exogens, those which are of the slowest growth are the best for building, and all ordinary purposes; because, in them, the layers of wood become very dense by the time the stem is of sufficient size to be fit to use; and, again, in such stems the annual layers are closer together, and they are more compact for this reason. Of slow growing exogens, the British oak furnishes a good illustration; hence it is much sought after for ship-building purposes.

Some endogens furnish to the inhabitants of certain portions of the globe, their only means of support. They live on the fruit, clothe themselves with garments woven out of the fibres, make their huts out of the stems and thatch them with the leaves, and in fact live wholly on and by the endogens which surround them.

Of all the tissues found in all the stems, woody fibre is of the greatest importance to man. One great fact with regard to it is its immunity from decay; its value and importance cannot be overrated, and seems to have been well known to the ancients; for the ancient Egyptians employed it for the manufacture of mummy cloth, in which to roll up the bodies of the embalmed; and pieces of mummy cloth are in the British Museum at this day, which are upwards of five thousand years old, and still in a sound state of preservation. Linen is woody fibre, because flax, of which it is formed, is woody fibre; and it is the woody fibre in the fibro-vascular bundles of the endogens and acrogens which enables them to attain such an immense height, and to withstand the terrible hurricanes of the tropics.

The form of woody fibre most commonly used in the manufacture of cordage, mats, &c., is the bass, or bast tissue, which is, as we know, the liber, or inner layer of the bark.

Keeping Cabbages.

At the time of the first snow the past winter, I still had many fine cabbages remaining in my garden, which I very effectually preserved for winter and even spring use, by merely tying a string about each stalk, with the roots perfect, and hanging them on nails around a dry cellar, and I do not know that one of them spoiled; their outer leaves decayed and stuck close around them, which only seemed to tend to their more perfect preservation, the hearts remaining sound, healthy in color and sweet, many of the stalks having thrown out shoots from their sides to the length of a couple of inches.—*Boston Cultivator.*

Drought.

BY WILSON FLAGG, IN HOVEY'S MAGAZINE.

It is an interesting employment to watch the progress of a drought from its commencement, and to witness the efforts of nature to resist its effects, and to guard the tender plants from injury. By carefully noting all its phenomena, we may arrive at a knowledge of its causes, which are undoubtedly, in one way or another, connected with the clearing of the forests, and we may learn the means by which we may secure our crops from its ravages, by certain appliances or particular modes of tillage. The drought that visited us in the summer and autumn of 1854, on account of its extraordinary severity and duration, afforded a study for the observer of nature, such as but few generations can witness; and it has led to much speculation concerning the means which may be used to save the country from the frequent recurrence of such an evil. I confess myself a mere superficial observer of these phenomena, having entered only the vestibule of the temple of science, from which I endeavor to take as wide a view as possible of nature and her works, humbly seeking every opportunity to gain access to the inner temple, from whose windows I may behold a wider prospect, and trace the relations of things which seem now to have no mutual dependence. Many imperfect laws are discovered by correctly noting superficial appearance: and if we trace the connections between all the phenomena that attend one of these periods of drought, we may acquire many points of information that would be valuable both to science and agriculture.

The first symptoms of drought are manifest in the wilting of the grasses, and other rough-leaved and fibrous-rooted plants. Of all perennials, the grasses are the least able to bear continued heat and drought; hence the almost entire absence of this tribe of the vegetable kingdom in the tropics, and their scarcity in all latitudes below the temperate zone. Almost at the same time with the grasses, the tender annuals begin to wilt and droop in the gardens. Among our common weeds, the Roman wormwood, the goosefoot, the mustard, and the wild radish, feel its effects at an early period. Their leaves become drawn up, they gradually lose their verdure and freshness, and do not increase in growth. Of the annuals, those suffer the least which have a succulent leaf and stem, like the portulacca and the sedums. All the rough-leaved species, like the aster and the hibiscus, are among the first plants that suffer and perish.

As the drought proceeds, the grass fields in the uplands, where the soil is thin and meagre, become dry and yellow; and the clover, the whiteweed, and the saxifrage are made conspicuous by their green tufts, which retain their verdure after the grasses are completely seared. At the same time the foliage of young trees loses its lustre and is often partially tinted by premature ripeness and decay. The unripened fruits drop constantly from the trees, and the new foliage that is put forth is pale as if it had suffered from a deficiency of light. The fruits of the season ripen before they have attained their fullness: the whortleberries are withered and dried like pepper, and their foliage is rolled up and crisp. The air contains no moisture, and the hygrometrical lichens upon the rocks and hills are crusty, and break and crumble under our feet, even after sunset.

The lowlands begin to suffer after the uplands seem to be past redemption. Rivers have shrunk to rivulets, and widespread lakes to drear morasses, encircled by a blackened shore, which is caused by the receding of the waters. Some ponds are completely dried, and the fishes are dead and stiffened in the marl which has been baked in the sun. The aquatic plants lift up their long, blackened stems out of the mud, showing the former height of the water, which has sunken away from them. We look round in vain for the usual wild flowers of the season: they remain blighted and stationary in their growth, and refuse to put forth their blossoms. The whole landscape wears the aspect of a desert: for even the dews have fled, and the evening air is dry and sultry.

The sallow hues of autumn rest upon the brows of summer, like the paleness and wrinkles of age upon a crew that are perishing with thirst and starvation. We find no wet places in the meadows, and even the brooksides can hardly be traced by their greener vegetation. The forest trees at last begin to suffer; and on the wooded hill-tops we see here and there a group of trees completely browned or blackened in their foliage, some being dead, and others gone into a state of premature hybernation. The animals suffer no less than the vegetables on which they are dependent. The birds are languid and restless, and do not sing with their accustomed spirit. The squirrels make longer journeys in search of their food, and the hare finds it difficult to obtain sustenance from the dried and tasteless herbs and clover. The chirping insects are dumb and motionless for the want of food; for every tender herb is sere and dry, and multitudes of creatures are hourly perishing with famine.

At this time man watches anxiously for the weather-signs, looking often up to heaven for some kind assurances of relief; but there is no truth in any of the usual omens. The tree-toads from the neighboring orchard—the weather's faithful augurs—by an occasional feeble croaking give false promises of change. The western clouds diminish as they rise; for the fountains of heaven are dried up, and cannot supply them with moisture. The black and threatening clouds that, before sunset, darken the horizon with the signs of approaching rain, are deceitful; and false is every beautiful signal which is hung out amid the splendors of declining day. There is no truth in any sign that appears in the heavens or on the earth.

The arrangements of the clouds do not differ essentially from such as appear in ordinary seasons; but the hue of the heavens is less brilliant, and the tints of yellow and bronze predominate over those of crimson and vermilion. The clouds invariably dissolve soon after sunset, like the steam from boiling water in a clear atmosphere. This dissolution is one of the unfailing accompaniments of drought in all seasons. While the sun is up, there is sufficient evaporation to produce clouds, which continue to increase as long as this evaporation is kept up by the sun's heat; because the dry region of air above does not absorb them so rapidly as they are produced from below. At the sun's decline, all evaporation from the earth and the water ceases. The superfluous moisture of the lower strata of the atmosphere is then precipitated to the earth in the form of dew, and the clouds, which were formed in the daytime, are rapidly absorbed into the dry atmospheric region above them. This process is carried on, day after day, until the whole atmosphere has become saturated, after which, rain must soon follow. The first symptoms of this saturation are the continuance of the clouds, without any diminution of their bulk after sunset.

The majority of observers have probably witnessed this process of evaporation of the clouds during a dry spell, in the afternoon—a phenomena which, undoubtedly, contributed to give rise to the old saying, that "all signs fail in a dry time." The clouds darken and gather together as usual before a thunder shower. They rise slowly, and sometimes, though but seldom, a slight rumbling of thunder may be heard at a distance. As they ascend above the horizon, their substance becomes perceptibly thinner and more transparent: the fragments that are broken off from their summits dissolve into air, and the clouds have entirely disappeared before they have risen twenty degrees into the heavens. Not unfrequently a cloud continues to ascend, during the prevalence of a strong wind that bears it along so rapidly as to give it no time to dissolve. As we watch its progress with gladness and expectation, we soon observe beneath its dark mass a gleam as bright as gold. The trees and herbs are bent by a brisk and sudden gale: a storm of dust conceals the landscape from sight: a few heavy drops, amidst the din of the elements, splash on the dusty streets, and all is over.

The weather during a period of drought in summer is always even and warm. Any sudden or extreme changes of temperature must always produce rain. Hence fair and serene days are the necessary accompaniments of drought. But vegetation is so greatly seared and deprived of its verdure, and all animated things are so listless and silent, that there is but little pleasure in a prospect, except of the ocean and the heavens. It is then delightful to witness the movements of the water birds, who seem not to share the afflictions of other creatures; and it is refreshing to observe the luxuriance of the marine plants, and to feel the damp and invigorating influence of the sea breezes, that come laden with moisture, and afford a pleasing anticipation of the blessing that must ere long spring from this great reservoir of waters, and ultimate source of all the terrestial gifts of nature.

Profitable Blackberry Field.

The editor of the Norwalk, Ct., *Gazette* has been visiting the New Rochelle fields, belonging to Messrs. George Seymour & Co., and says that three acres under cultivation have produced over four hundred bushels of blackberries, with a cultivation that cost $8 per acre, and the blackberries, when sold in New York, realized, above expenses, $3200, or more than $1000 per acre. Besides this, thirty barrels of blackberry wine, now worth $50 per barrel, have been made from the berries grown on the same lot, and there are plants enough for the sale of next spring to make the net yield from this small lot at least $5000.

The Potato Bug.

In a late issue of the Cincinnati *Gazette*, a correspondent confirms the insect theory of the potato rot. He says:

"The potato bug has committed its ravages extensively. This destructive pest is increasing from year to year, because it is not destroyed, and farmers make no effort at limiting its numbers. Birds and poultry, and nothing else, will destroy it, for it belongs to the *cantharides* or blistering-bugs. In Indiana I have met with two kinds, the yellow-striped and the ash-colored, but near Pittsbugh, Pa., I recently saw a small and black variety. Here the yellow-striped is the most destructive, for it appears in myriads. The ash-colored is a large variety, comes earlier and disappears later than the yellow-striped, but, being few in number, cause no material injury. The black variety is more numerous than these, but we have not seen them in sufficient numbers to be formidable. These bugs appear about the middle of July and remain from two to three weeks. They then go into the ground, deposite their eggs, and die. In three or four weeks the eggs are hatched, producing a slender, yellowish-colored grub, with a reddish head, and having six legs. These live upon fine roots, and in the ensuing year change into bugs which live upon the leaves of several plants, but especially upon those of the potato. When numerous, they will cover every leaf of many hills, and eating enormously, they soon go over a moderate-sized patch. This year they consumed for us a fifth of an acre in about two days. Hence, at the time of their appearance, the farmer should daily examine his potatoes. To keep down their numbers the bugs should be destroyed, for then they will not lay eggs for a next year's swarm. The most effectual method to do this is to take a pan half full of water and pour turpentine into it until it is about one-eighth of an inch thick. Put this basin under the vines with the left hand, and with the right hand brush the bugs into the basin. The turpentine will kill them immediately, and when the water will hold no more, sprinkle bugs and all over the vines. The scent of the turpentine is extremely offensive to them, and a knowledge that many of them have been destroyed frightens them away. Pursue this course three times a day, and in a day or two they will disappear. I tried the turpentine for the first time this year, and made but one visit to the patches. The next day I had to leave on a journey, and returning three weeks after, found no further injury done, and the leaves which had been eaten had again grown out. The turpentine did not injure the vines."

Death of the Inventor of Perpetual Motion.

Mr. James D. Hendrickson, of Freehold, Monmouth county, well known for his "perpetual motion" machine, died on Saturday last. He had devoted his life to obtaining perpetual motion, and his machines have been a puzzle to all who examine them, as they have certainly moved for six years without the application of any external power, and apparently with no intention of stopping.—Mr. H. suffered much ridicule and persecution, but was a quiet, honest and patient old man. He was once arrested at Keyport for practicing "jugglery," under the "act for suppressing vice and immorality." At the trial, several builders, mill-wrights, engineers and philosophers were called, who testified positively that no such motive power as that alleged could drive the machine, and that there must be some concealed spring. So the machine was broken, but no motive power was discovered. At the time of his death Mr. H. was engaged in applying his machines to clock-work. He had been so much persecuted by the incredulous that he had provided a secret place beneath the floor of his shop, where his last two machines were deposited. It was in the form of a vault, covered by a trap-door, which was locked, and the floor so replaced as to avoid suspicion. After his last illness commenced, he made known this secret to his family, who examined the spot carefully, and found the contents exactly as described. The night of his death, the shop was broken open, the floor taken up, the trap-door pried off, and both models stolen. It is probable that the family in their visits had not taken the same precaution as the inventor, and prying eyes had discovered the secret.—Fortunately the drawings are preserved, and there is a little machine, one of the earliest made, now running in Brooklyn, where it has kept up its ceaseless ticking for nearly six years. Mr. Hendrickson leaves a family of four sons and four daughters, all of them we believe, given to invention.—*Newark (N.J.) Advertiser.*

Notices of the Press.

Our own MICHIGAN FARMER visits our table every week, and brings a feast of good things. The FARMER sustains a high character among its class of journals. We are happy to see that our State has had the good sense to appreciate the talent of its editor, R. F. Johnstone, Esq., and appoint him to the position of General Superintendent of the Agricultural College Farm at Lansing. We are sure he will fill the position with advantage to the State, the students and the farm, and with credit to himself. The FARMER is published weekly by him, at Detroit. $2.00 per annum.—*St. Johns Democrat.*

THE MICHIGAN FARMER fulfills the promises of its prospectus, which is more than can always be said of such promises.

The series of articles on "The Structure and properties of Wool," by Dr. Goadby, are valuable and interesting, and any scientific publication in the country might well be proud of them.

The price current, the editor may, and we hope will, make a prominent specialty of the FARMER. The Farmer's newspaper *ought* to be a perfectly reliable source of information as to the markets of produce.

We hope the FARMER is a success, pecuniarily. It certainly deserves to be. Mr. Johnstone has shown himself courageous in changing the FARMER to a Weekly at such a pecuniary crisis.—*Gazette.*

MICHIGAN FARMER.—To the former and horticulturist of Michigan, this publication is unequalled. Devoted to the advancement of their interest it is always filled with good things, suited to their wants and necessities. Good farmers *will have* this paper. It is published in our own State and is furnished as cheap as any paper in the United States.—*Lapeer Republican.*

THE MICHIGAN FARMER finds its way to our table regularly every week. It is gratifying that the intelligent farmers of Michigan are so well represented through the columns of this weekly Journal, and they give it their generous support. No paper in the Union excels it, and for the latitude of Michigan, no one equals it.—*Genesee Democrat.*

We notice that our Agricultural Society have adopted the plan of awarding, in some cases, copies of the MICHIGAN FARMER as premiums.—This is a good move, and those who are so successful as to draw them will find them of much more value than the "Diplomas," and "Transactions" which used to be awarded. We consider the MICHIGAN FARMER, published at Detroit, and the *Ohio Farmer*, published at Cleveland, as two of the best and most useful agricultural papers in the country, and no intelligent practical farmer should be without one or both of them. You would find either of them a good investment. Price of each $2.00 per annum, $1.50 in clubs.—*Branch County Republican.*

MICHIGAN FARMER.—We cannot too highly recommend this farming journal to the notice of our agricultural readers. It should be in the hands of every farmer, and of every farmer's wife and children.—*Rep. Banner.*

THE MICHIGAN FARMER, is received, a splendid weekly journal, devoted to the affairs of the farm, the garden, and the household, published at Detroit by R. F. Johnstone. It is a neatly printed quarto sheet 'chuck full' of the very best agricultural reading. We wonder that there is not a larger number taken here.—*Ingham Co. News.*

MICHIGAN FARMER.—We cannot over estimate the value of this excellent agricultural journal.—For reliable information relative to the subjects of which it treats, it cannot be excelled. Every farmer in the State should take it. It is a large weekly paper published in quarto form, and is cheap at $2 a year. Three copies for $5, five copies for $8, and ten copies for $15, Address R. F. Johnstone, 130 Jefferson Avenue, Detroit.—*Bay City Press.*

We are in receipt of the MICHIGAN FARMER, a weekly journal of affairs, relating to the farm, the garden and the household, published at 130, Jefferson Avenue, Detroit Mich., R. F. Johnstone, Editor. The FARMER is pronounced by competent judges to be one of the best agricultural papers extant, and we cheerfully annex it to our list of Exchanges. The low rates of their clubbing terms, afford an opportunity for every farmer to subscribe.—*Morenci Star,*

MICHIGAN FARMER.—This weekly journal is becoming more and more a credit to our State.—Each number is filled with important matter, with most judicious selections and able editorials. It certainly deserves to be sustained and supported by our agricultural people. It is an excellent reading and family paper also—contains the latest general news and scientific intelligence. Its horticultural calendar, for April, contains articles on the preparation of the garden, on kitchen garden plants, on apple seeds and their treatment, which are useful to every one who has a garden to cultivate. The price of the journal, is $2 a year—three copies for $5, or five copies for $8, in advance.—We hope the efforts of Mr. Johnstone, the able and indefatigable editor, will be amply rewarded by a large list of home and foreign subscribers.—*Marshall Expounder.*

Many letters from private personal correspondents are even more encouraging than the above.—We have room but for one or two. An influential farmer in this State writes:

"I send you a few more names for the FARMER. Our town will make a show on your Books another year. Many eastern agricultural papers have been taken here, which are good enough as far as they go, but we find out that if we want to know anything about *Michigan* agriculture, we have got to look to the MICHIGAN FARMER for it. Your week ly is much liked. It comes fresh, prompt, and full of good things every time."

A Massachusetts subscriber says. "I take nearly all the agricultural papers published in the United States, and would rather be without any three or four of the others than the MICHIGAN FARMER."

One in Western Illinois writes: "Enclosed find my subscription for the FARMER. I have tried a good many papers, but none seem to come right home to us with the information we want as yours does. Let Eastern ones say what they will, and strain themselves to the utmost to buy up our subscriptions at a discount, they cannot satisfy us; we have not what we want here at the West, till we get the MICHIGAN FARMER."

NEW ADVERTISEMENTS.

HENRY WHITE, N. Y.....Ladies American Magazine.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, NOVEMBER 26, 1859.

The Agricultural College.

Our readers will find on another page a report made by the Superintendent of Public Instruction to the Board of Education at its late meeting at Lansing. As this report contemplates a radical change in the whole system of instruction afforded by the Michigan State Agricultural College, it will be found well worthy the careful attention of all who feel interested in that institution.

Before examining this report and its suggestions, it may be well to refer somewhat to the position of the Agricultural College itself, in regard to its educational system, and its history. During the past six months, we have taken advantage of the position afforded us by a temporary connection with its management, to become as intimate as possible with its whole system in every department, and have also sought with diligence for the causes which had evidently diverted it from the course marked out by the constitution and the law under which it was organized, and which had also brought it into its present position. In referring, therefore, to what it is and has been, we shall not speak from mere hearsay, nor shall we view it at all through the medium of reports, nor of mere brief visits, wholly unsatisfactory in the amount of information afforded by them, but from an actual experience, during which much of the business details passed through our hands, the Board of Education having entailed upon us the duties of Secretary to the College, as well as those of Superintendent, and also from a full trial of these positions under circumstances somewhat similar to those which have prevailed at the institution from its very earliest period.

When the Legislature passed the law in 1855, providing for the establishment of the Agricultural College, there seems to have been prevalent amongst its advocates and friends no well defined plan of operations laid down either for the guidance of the Board of Education, or of the Board of Government of the institution itself. It was believed that time and experience would work out the problem, and ultimately bring out such an organization as would fulfill all the hopes and expectations that were entertained relative to its future. The absence of any well matured plan, has, therefore, been one chief difficulty which the management has had to contend with, and to get rid of this obstacle to progress is evidently the design of the present Board of Education, as may be judged by the report which was drawn up in accordance with their views. It must, however, be admitted by all who may give the history of the growth of the institution a fair investigation, that the want of design was not the sole cause of the present position of the College. When first started into existence, there was a general understanding that it was to be an institution of learning for farmers' sons, at which their services in farm labor properly organized was to pay a large part of their expenses of living. This notion, though very prevalent, but not at all correct, was most certainly fostered by the location of the institution, which was placed in the midst of a dense forest, with not enough cleared land to even give it a fair sized lot for a vegetable garden. No experimental or other system of improved agriculture could be attempted upon such lands for some years; and if, as was really the case, the whole work of preparing the land for culture was to be done by the students, a good fair general education was in reality all that the State had to proffer in return for the services of the young men who came there, and not only worked, but paid in their money for board, when their work, as assessed, did not hold out. Hence when the late President entered upon his duties, and when the professors were appointed, the whole institution was in the very crudest state that could possibly be imagined, in every department, both practical and scientific.

It must also be considered, that the class of students which were presented for admission at the opening of the institution, had something to do with the adoption of the system of instruction that has prevailed. As in all institutions of a like kind, it was considered desirable to make a beginning under any state of circumstances, whatever, and as the students were to be employed in the work of the farm, there was no choice left to the faculty but to accept those which presented themselves, if they were at all fit, especially as there was not a very great number beyond those who could be accommodated, and who were wanted for immediate work. The low grade of acquirements then established as necessary for admission, and the intellectual wants of the students, together with the necessities of the institution and estate itself, in our estimation gave that bias at an early day which caused it to assume the position of a manual labor school, rather than that of an agricultural college, for the general education of Youth.

For to this view of its capacities and ultimate design, it will have been noticed that the late president was forced, not only by the circumstances which surrounded him, but also by a strong desire to render the institution as useful as possible at an early day, to as great a number of the young men of the State as could be accommodated at it, as well as by the kind and quality of the professorships that had been established by the Board of Education. For the three years that it has been in operation, therefore, the College at no period has come up to that standard to which it was designed it should attain, and instead of being a professional school of Agriculture and Horticulture, it has been in reality a manual labor school of a high grade, at which numbers of young men could gain excellent education in all that relates to English Literature, and in several of the Sciences which have a general relation and bearing on Agriculture, at a very moderate expense. Even in the more practical departments, the necessities of the institution have exercised such a control, that nothing could possibly be made of it beyond an organization of the students' labor, and it is very doubtful, whether for one or two years more, much can be done, without at least a moderate outlay for stock, fencing, and buildings can be made, as the whole of the improved estate has to be remodeled, and subdivided. Yet during the three years of probation through which the College has passed, it has even now reached a state from whence a new start can be made with some prospect of success. Hence in both views, that of giving the studies a more professional bearing, and that of the practical illustration of theoretical instruction, many of the changes suggested by the report are eminently proper at this time. Whether the financial position of the institution will permit them to be carried out advantageously to their full extent, so as to develop their utility at once, is a question which we are not called upon to discuss at present.

The Examinations at the State Agricultural College.

The Examinations held last week at the State Agricultural College were attended by a larger number of visitors than has ever been present on any occasion of a like kind since the organization of the College. Of the board of visitors appointed in pursuance of the law, consisting of the Hon. P. Bills, of Tecumseh; T. T. Lyon, of Plymouth; and the Hon. E. H. Thompson, of Flint, the two first named only were present. These gentlemen came to the College the week previous to the examination, and took up their residence at the Boarding Hall, with the design of giving the institution a thorough examination in all its departments, both out door and in doors, and we are inclined to believe that their report will prove of much value. It will be the first document of the kind, and they are the first board of visitors appointed in pursuance of the law organizing the College.—Both gentlemen are well known for their acquaintance with the educational system of the State, and both are also citizens well versed in the operations of the farm and of the garden, and have given much attention to the wants of the State with regard to its progress in Agriculture and Horticulture. We therefore look for their report with much interest, and especially as we feel sure that there are not any two men, in or out of the State, who have given the institution so thorough a visit, and who have made themselves as intimate with its whole system of management and of education.

The examinations of the several classes were passed through with much credit both to teachers and students. And the exhibition in the evening of Wednesday gave a most excellent idea of the training which the pupils had had in the English Literature Department. The practical analysis in chemistry, the class under Prof. Fisk, went through a series of examples exhibiting a good practical acquaintance with the apparatus, and its application, as well as with the various substances used as tests, and how to apply them. In Physiology, vegetable and animal, the examination was severe, but the students underwent it most creditably, as well as in Entomology. In this latter, as a test of the practical method adopted in teaching, and of its utility, a small box containing a large number of the fragments of insects, wings, heads, bones, &c., was emptied on a sheet of paper, and each of the students was required to name the part of the insect and the order to which the insect belonged, that composed any of the fragments which might be selected by chance for their examination. This test was passed without a single failure, and without a mistake being committed by any of the pupils. We could hardly say which were most delighted at the success of this crowning test of the proficiency of the class, the visitors or the teacher.

The programme of the exhibition was as follows:

"Chemistry in its Practical Applications,"—Essay—Edgar J. Abbott.
"Midas"—Oration—Wm. M. Greene.
"Stems of Trees"—Essay—Gilbert A. Dickey.
"Mathematics"—Essay—Chas. J. Monroe.
"Sources of error in the Investigation of Truth"—Oration—Chas. E. Hollister.
"Whisky"—Essay—A. Benton Morse.
"The Anglo-Saxon Race"—Oration—W. Wallace Preston.
"Iron"—Essay—Albert N. Prentiss.
"Patriotism"—Oration—Seneca N. Taylor.

We have printed the essay on the "Stems of Trees," by G. A. Dickey, as affording in some degree a fair index to the training which some of the students have had, and as being more suited for the columns of this journal than any of the other essays, which though as well written, had more of a literary character.

The Markets and their Prospects.

There are but few observations to be made on the markets of farm produce at the present time. The close of navigation has been almost reached, and where shipments are attempted, it is at such high rates for freights on account of the risk, that they effectually stop all expectation of a margin. The supplies from the interior of the State have also been very light, and of so little account that it is almost impossible sometimes to make a daily quotation. Whilst it is generally conceded that there is a large supply of wheat in the State, and prices are reasonably remunerative, it seems somewhat strange that so little should be offered. This certainly seems to indicate that the farmers have got out of debt, or they have been able to stop payment so effectually that their creditors have ceased to push them. As a general rule, applicable to debts owing by the farming community, we need not suppose that there has been any "let up," but rather that there are few debts owing, and that the wheat growers are holding on to their stock, with some reasonable hopes that it will be wanted in the spring at better prices than can be now obtained for it. The new crop of corn is coming into market pretty freely at good prices for this year's growth. The price is kept up by the general impression that there will be a scarcity of feed felt in many parts of the State this season, owing to the light crop of hay.

We incline to the opinion that the pork trade will show an advance in price as the season approaches for more business to be done. There does not seem at present to be a very great activity in the large markets, though this is about the time when they should be pretty well crowded.

In the New York and other eastern markets, we note no changes that seem to indicate any buoyancy in the Breadstuffs trade, beyond what is created by the supply of the home demand. It will certainly leave the trade in an unusual position, if no foreign demand is made upon our stock before the opening of navigation in the spring.

The Resolutions of the Board of Education.

It will be seen that appended to the report adopted by the Board of Education, are the series of resolutions passed for the purpose of organizing the Agricultural College upon the plan laid down in the scheme submitted by the Superintendent of Instruction. These resolutions were submitted to the professors at a meeting of the Faculty, on the 18th instant, and it was there considered the best method of permitting the Board to re-organize the educational department of the institution, was to leave that body perfectly at liberty to make such changes as would seem best to them without the embarrasment of consulting relative to the transfer of any branch of study from one department to another. We believe that all the professors, therefore, have sent in their resignations, which are to take effect on the first of January next. This action leaves the Board of Education at liberty to go on with the reform they have instituted, and to make such appointments as they may deem advisible for the best interests of the College.

The U. S. Agricultural Society.

The awards in some cases, at the late United States Fair held at Chicago, appear to have got considerably mixed. We learn from the New York *Tribune*, that the Executive Board have had a very serious time over the entries, as in some cases no less than five awards by different committees were made to one article, owing to the entry being in the "Miscellaneous" class. The *Tribune* remarks:

"The sub-committee of the Executive Board has terminated its session after having examined and passed upon more than one hundred contested awards. The cases have been mainly those embraced in the "Miscellaneous" class of implements and manufactures. It was found that in the hurry of business at the late National Fair at Chicago, articles had in some instances been entered in several classes, and the judges of each had passed opinions on their merits, so that there were actually awarded in one case five distinct prizes to one and the same article. Again, it happened that after a regular Committee had examined and passed upon some article, the owners had managed to get another Committee appointed to act in the case; and the decision perhaps reversing that of the regular Judges, much confusion resulted. The Executive Committee have patiently sifted all these cases, and invariably sustained the awards of their regularly appointed Committees. Certainly, if they had adopted any other course, the precedent would have been a most pernicious one in its effect."

Scientific Intelligence.

Agricultural Patents issued for the Week ending November 8, 1859.—Ephraim C. Allen, of Le Roy, N. Y. Improvement in Corn-planters.

Nelson Burr, of Batavia, Ill. Improvement in Corn-shellers.

J. P. Harris, of Byhalia, Miss. Improvement in Plows.

Horatio F. Hicks, of Grand View, Ind. Improvement in Machines for Pulling and Cutting Cotton and Corn-stalks.

A. D. Hoffman, of Belleville, Mich. Improvement in Cider Mills.

[The object of this invention is to obtain, within limited dimensions, a machine that will crush apples and express the juice therefrom with a small expenditure of power; the crushing and expressing operations being performed simultaneously and the juice separated from the pumice. The invention consists in the employment or use of two crushing rollers, one being toothed and the other correspondently recessed to receive the teeth of the former one, and using, in connection with the crushing rollers, two pressure rollers and an endless apron: one pressure roller being provided with yielding longitudinal bars, and the whole arranged and combined to operate in such a manner as to effect the desired result.]

Allen N. Merrill, of Batavia, Ill. Improvement in Seeding-machines.

Oliver P. Moran, of Haynesville, Mo. Improvement in Corn-planters.

Jacob H. Mumma, of Harrisburg, Pa. Improvement in Straw-cutters.

C. Bird Pate, of Moore's Mills, Ind. Improvement in Stump-extractors.

Harvey Trumbull, of Central College, Ohio. Improvement in Straw-cutters.

General News.

Eli Thayer keeps at work at Ceredo, his Virginia free colony. Several New England families have lately purchased homes there.

Brownsville is safe. Capt. TOBIN and 88 rangers arrived on the 13th, making nearly 200 troops and volunteers now. On the arrival of Capt. TOBIN, CORTENAS' chief officer, who was held as prisoner, was hung without a trial.

The Quail, an armed schooner, presented to the Liberian by the British Government for the protection of the coast from slavers, has arrived in the colony and been accepted by the authorities.

The old Line Whigs of New York have nominated a candidate for Mayor. There will be five tickets in the field at the next election.

The San Francisco *Bulletin* thinks that the visit of Gen. SCOTT to the Pacific coast will convince him of the necessity and military importance of a Pacific railway, and that if he reports thus to government on his return, his opinion will turn the scale in favor of building the road by the General Government.

Disunion is openly and widely talked of in Virginia just now.

It is said that Madame JENNY LIND GOLDSCHMIDT contemplates returning to the practice of her profession as a public singer.

A hurricane swept over South Carolina on Sunday, doing much damage.

The under ground Rail Road just at this time is doing a tremendous business. Scarcely a week passes but a company of from 20 to 50 fugitive slaves are landed safely in Canada.

Ossawatomie Brown was a soldier in the War of 1812, and fought in the battle of Plattsburg. He is said to have been the father of twenty-two children.

—Hayti was quiet at latest dates, and it is supposed that the conspiracy is effectually crushed out.

—Mrs. Harriet Beecher Stowe, now in England, has decided to pass the coming winter in Switzerland.

—Northern Missouri is rapidly being cleared of slave labor. What the underground railroad leaves undone the fears of the slave-holder accomplishes. The blacks who do not escape to Canada are almost certain to be sold south, so great is the panic.

—The excitement at Harper's Ferry continues, or rather augments. A number of incendiary fires have occurred in Charlestown during the week, and these it is believed are a part of a plan to rescue Brown. Thousands of troops have been collected from all quarters, and the strictest vigilance prevails. A sharp look out is kept up for northern strangers, and every Yankee pedlar that makes his appearance is looked up forthwith.

—A new edition of the Sickles case transpired at Port Huron a day or two since. The full particulars have not yet been published.

—Gerrit Smith oppressed with business and anxiety with reference to John Brown whose warm friend he was, has become deranged and has been placed in the Insane Asylum at Utica. He is suffering from bodily as well as mental illness.

—In Mexico the civil war continues with its usual catalogue of horrors. Assassinations, robberies, and outrages upon persons and property, were of daily occurrence. Our latest advices from the City of Mexico are to Nov. 1. Intelligence had been received of the capture of Tepic and the scenes which transpired upon that event. The Constitutionalists, on taking possession of the town, shot, in the Plaza, many persons who were suspected of sympathy with the clergy, and imposed a heavy contribution upon the population.

The Household.

She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

THE WHIPPOORWILL.

In dimness of twilight, all sadly and lonely,
A youthful adventurer rode o'er the plain,
The stillness was broke by the Whippoorwill only
As slowly he sounded his mournful refrain.
By the stream near the mill
Sang the lone Whippoorwill,
And Echo, far distant, caught up the sad strain,
Whip-poor-will, whip-poor-will;
She murmured it o'er to her favorite hill,
And faintly the hill sung it back to the plain.

The wanderer sighed, for his steps were departing,
Far, far from his home and the land of his birth,
And, spite of his pride, the warm tear-drops were starting,
Unchecked and unheeded they fell to the earth,
While ceaselessly still,
Sang the lone Whippoorwill,
And sadly re-echoed the mournful refrain,
Whip-poor-will, whip-poor-will,
But fainter it seemed as he paused on the hill,
And turned his last look toward the valley and plain.

Then he thought of his parents who gave him their blessing,
Of sisters who murmured their tearful adieu,
Of brothers whose hands he no more should be pressing,
But most of a maiden whose soft eyes of blue
Seemed to follow him still,
While the lone Whippoorwill
More sadly was sounding the mournful refrain,
Whip-poor-will, whip-poor-will,
Till the wanderer turned with a sigh from the hill,
And the shadows of night settled over the plain.

Now years have gone by and the youth is a stranger,
Still far from his kindred, and far from his love,
But there lies near his heart through all peril and danger,
A soft golden ringlet encircling a dove.
It was there on the hill
When the lone Whippoorwill,
So mournfully sounded the solemn refrain,
Whip-poor-will, whip-poor-will,
'Tis the charm of his life and he'll cherish it still
As the gift of the maiden who dwelt on the plain.

He wanders alone—in the twilight—in sadness,
He dreams of the maiden, the ringlet, the dove,
When sudden his eyes are uplifted in gladness—
The night-birds are wheeling in circles above!
Never, since by the mill
When the lone Whippoorwill
So sadly was sounding the mournful refrain,
Whip-poor-will, whip-poor-will,
Hath he heard the wild notes that his bosom could thrill,
And now he could weep but to hear them again.

But in vain may he linger, in vain may he listen,
The night-birds like arrows shoot over the plain!
They are gone; and the cold stars in mockery glisten,
While silence and darkness close round him again!
Nevermore by the mill
Shall the lone Whippoorwill,
For him be repeating the mournful refrain,
Whip-poor-will, whip-poor-will:
He knows the dark omen can bode him but ill,
The maid is another's—his worship is vain!

Preparing for Winter.

As soon as the summer birds went away, the poets all over the country took up their trade, and such a shower of Autumn songs came down upon us with the falling leaves as would have astonished the robins and thrushes had they been here to listen. Some were sad and sighing like the winds, some quiet and dreamy like the Indian summer days, and some doleful as the wailing of an almost exhausted equinoctial storm. Hymns, songs, sonnets, odes and invocations to Autumn have had their season and are passing away, for this year at least, and while the minstrels are taking their rest in anticipation of a general winter chorus by and by, the more prosy part of creation, the preachers and the not forgetful doers, are busy with words and works, preaching and practicing on the text above. The notes of preparation are sounded from every agricultural pulpit, and echoed back with hearty amens from barns and barnyards, from fields and forests and, shall we not say from dooryards, and farm houses, even in the house, in the cellar, the pantry, the kitchen and, most of all, in the family room? The parlor we will not go into, if it is one of those solemn, sepulchral rooms where gloom and good furniture are shut up together; if not, if it is accessible, open, cheerful, let it come under the general name of family, or living room.

The house, of course, is banked up; that is attended to by father or the boys; the cellar is well stored with all provisions necessary for winter comfort; the pantry is in order, with its flour and meal bin or barrels filled, its boxes, jars and cans supplied with coffee, tea and spices; the kitchen, now that the house-cleaning is done, is settled down into a quiet routine for winter operations, and a general calm has succeeded the stormy reign of the household equinox of whitewash and scrubbing brushes. But with all this, are the preparations for winter ended? By no means. Mother and sisters know how many suits of clothes are yet to be made, and how many warm socks to be knit for little feet, and big ones too; and how busy their fingers will have to be through all the short days to keep their never ending housework "done up" and to gain time for all the knitting and stitching that must be done as well. But even yet the preparations are not all perfected. Comfortable housing and plenty to eat you give the cattle and sheep around your barns; the girls and boys in the house want something more. For the full improvement and enjoyment of the long evenings coming, fire wood and candles, and books and papers should be plentifully provided. Do not make the boys stay in the dark kitchen with nothing to do but talk over the events of the day drowsily for an hour or so, and then go off to bed without a pleasant thought to dream upon, or an aspiration to make their life to-morrow better than the sunset found it to-day. Give them a chance to cultivate refinement of manners as well as their intellects, by associating with the gentler members of the family in the most comfortable room in the house, with plenty of light and every encouragement to improve it. How often have we seen in a family room on a winter evening, the mother and girls drawn up closely around the little stand, where one poor candle shed its feeble rays, stitching away in gloomy silence, while the boys and father, unable to get a glimpse of candle light on their books or papers, except as it came over or from between the closely bent heads around the stand, would strain their eyes for a while to conquer a paragraph or two, and then, concluding that reading was too tiresome after a hard day's work, the paper would be tossed aside and the evening ended in moody thoughts of to-morrow's toils. What a change would another candle have made, and how little the expense compared to the pleasure gained!

Light; prepare plenty of light for the winter evenings; both in the way of light for the mind and light for the eyes. It is in homes where bright, happy evenings are spent, with all the family together, that the best men and women are raised. And when they go out into the world, it is to these evenings so happily spent that they will always look back with the sincerest pleasure. In all your preparations for winter then, do not forget to prepare to be happy.

The Country Village.

There is no place like a country village for studying human nature. In cities, life is too crowded and artificial; among farmers it is too isolated and monotonous; in country villages, before they get large enough and ambitious enough to put on city airs and aspire to a corporation, there is every variety of station from the "richest people in town" down to the washerwoman and the cobbler, and they are neither so crowded together as to lose their individuality, nor so isolated as to forget their humanity. There is just enough of emulation and clashing of interests to keep everybody awake, and not so many people but what every one can feel an interest in whatever is going on. In all the petty rivalries, the nicely discriminating claims of rights, and the pertinacious little jealousies between the members of the "upper class," the washerwoman, the hired girl, and the village milliner are as deeply interested as the principals themselves.

If there is one place more than another better adapted to drawing out individual characteristics, it is a country village. Even the houses are individualized. They look like their owners or builders. If you want to know which house a man lives in, you have only to get sight at him and then look about among the houses for his counterpart. There is the man who keeps a small whisky shop and shaving saloon beside the post office. Look at his bloated figure, leaning to one side as he supports himself against the door post, with both hands in his pockets, his pipe in his mouth wrong side up, the soiled linen showing to great disadvantage about his neck and bosom, and the dirty drab felt hat lopped completely down over his forehead and one eye, while with the other half shut he is squinting lazily at the passers-by. Look around now for his house. You cannot mistake it. There it stands, one of the oldest houses in the village, facing a narrow and muddy street, with the never failing mud-puddle just beside the front gate. It is unpainted and weatherbeaten; the sills under one corner have given away, and the upright part, or what should be upright, is leaning considerably against the shanty-like lean-to which has been put up like a brace on the failing side. There is one whole window of glass, the others are of the composite order, shingles, paper and old hats entering largely into the composition. In one corner of the front yard is a haystack, and pens for the cow and pig in the other. The day is pleasant and the door is open. A baby, not invitingly clean, lies sprawling in the broad sunshine, while the mother in a most untidy dress, sits rocking herself to and fro, now and then putting out her foot as a fender to keep the baby from pitching head first down the door steps. This is enough; we need not go in, nor ask who owns the house, woman and baby.

Here is the shop of the village carpenter. He is at the bench with his clean, striped apron on, shoving the plane and rolling off the long, curling shavings to the time of the pleasant tune he is whistling. His shirt sleeves, bosom and collar are as white as snow; he has a close-fitting paper cap on his head to keep the dust from his hair; he works with both eyes open, and looks up at you brightly and pleasantly when you enter his shop. Look about now for his house. There it stands, not twenty rods from the other. But what a contrast. What a picture of neatness and beauty is this. A clean gravelled sidewalk leads to the gate. The house is plain, but neat, bright and cheerful, like its owner. The door is open. Within, a pleasant looking woman is sewing, not in a rocking chair, and near her are two young girls, one reading while the other is dressing her hair. All through the house and through the fragrant yard, there seems an atmosphere of love, of quiet home joy. The cow and pigs are in their proper place, and the haystack is in the barn near them. The front yard is a pretty grass plat, beds of flowers are along the eastern and southern side of the house, while on the western side are two large trees which have been left of the forest; their tops are cut off, some of the longer branches clipped, so as not to cast too much shade on the garden, and under these is the children's playground. A long rope depending from two large branches forms a swing, a good board seat is made fast to the bottom, and there the little ones are, swinging and laughing gleefully.

The houses in their build and appearance are characteristic of the men, and you could not by any means mistake the owner of the one for the other. The same rule will hold good all through the town, particularly in the little village of which we speak, for there nearly every house was planned, if not built, by the man who lives in it, and is as much a counterpart of him as his children are. By walking about the street, you can tell which is the minister's house, which the lawyer's the merchant's, the doctor's, and so on, just about as well as if each one had a sign upon it.—They do have their signs, but they consist in association of characters, not in combinations of paint.

What Girls Can Do.

Mrs. H. M. T. Cutler, writing from the State of New York to the *Prairie Farmer*, gives me following account of a family of independent girls:

"The other day, in company with a friend, I went to visit the Roberts' family, in Pekin, Niagara county. This family consists of a father, mother, and five unmarried daughters—old enough to be useful in common avocations; besides a son and daughter younger.—The eldest of these daughters is scarcely eighteen, the youngest is not much more than eight.

"Last spring, finding it difficult to obtain a situation as a teacher, the eldest daughter proposed to engage in gardening so as to realize her own idea of pecuniary independence. Her father was the proprietor of a grist mill, a saw mill, and two hundred acres of land, and fashionable ladies said, 'What need for the daughters of such a man to think of being useful? Surely, it would be better to sit in the parlor to cut tissue paper, and net and crochet, and embroider, and be generally ornamental.' But not so, thought Mrs. Roberts and her daughters. They had usually six or eight men in the family to work and wash and mend for during a great part of the year, and there had been plenty of hard work in the kitchen, so that the idea of usefulness had been early implanted.

"The discussion of Della's plans led the other girls to think of out-door labor, and after a time the girls decided, that if their father would discharge four of his workmen so as to make the labors of the house lighter, they would go into the field and cultivate the crops which were already planted. The father had his prejudices. 'What will the world say?' rose up like a lion in the path, but the enthusiasm of the young girls at last overcame all objections, and the trial was made. The mother and her daughters went into the field, and, to their own astonishment, found that after keeping up with the men hoeing, never once flagging through the day, they returned to the house less weary than when pursuing only household avocations.

"Large fields of Indian corn, broom corn and potatoes were hoed out twice before the frost in July, which cut the corn and broom corn to the ground. It was now too late for any other crop, so Mrs. R. suggested that they should go to work preparing the ground for another season, and proposed that the girls should learn to plow and harrow. This was undertaken with genuine enthusiasm, and we had the pleasure of seeing a hundred acres of rich land, which these heroines of the plow had already prepared for the spring crops. Other fields intended for small grains had been thoroughly harrowed to prevent the weeds from seeding, and to keep the land mellow. Add to this, that they had cleared fifteen acres of old slashing, and did it better than any of the farmers in the neighborhood, besides digging nine hundred bushels of potatoes—and, you may imagine that their father was proud of the experiment.

"We saw three of the daughters hold the plow, striking a furrow seven inches deep with all ease. Next year, they are determined to carry on the farm by themselves, so as to show what women can do as farmers, towards realizing an independence. We shall watch their experiment with interest, and if it should turn out that it is actually easier for women to do half the work of the field than to work and wash for hired help, there may be a change in the state of affairs, even in the Prairie State, that will add greatly to the prosperity of agriculturists."

Alabama, N. Y., Nov. 3, 1859.

Household Varieties.

HOMELESS.

Homeless in a world of homes
What care I that hope has fled?
Let each wintry storm that comes
Beat on my unsheltered head.

I am growing hard and cold,
Statue-like on Life's broad plain,
Things that tortured me of old
Give not now a moment's pain.

Hopes have fled my morning path,
Darkness shrouds my noon of day,
And misfortune's cloud of wrath
Settles o'er my future way.

On the desert plain I stand
Where no light or bloom may come,
Palsied seems my drooping hand
And my icy lips are dumb.

Fixed, and O so chill I grow
As this sorrow o'er me creeps,
Scarce I hear life's rude winds blow,
Or the storm that round me sweeps.

Homeless in a world of homes,
What care I that hope has fled?
Every bitter storm that comes
Brings me nearer to the dead;

To that narrow, silent home
Where my hopes are lying low,
Where, a weary child I come
Finding rest from all my woe.

Is the World a Mistake.—One of the saddest mistakes which good people have made is in supposing the world to be a mistake. To these people—and their number is not small—the earth is but a theatre of pain and sickness, sorrow and death. Joy is illusive, pleasure a cheat, laughter a mockery, and happiness a thing impossible, and not even to be looked for on this side the grave. The performance of all duty is the "taking up" of what they call "a cross." They are actually afraid to be happy, under an overshadowing impression that they have no right to be happy in this life. They believe that there is something intrinsically bad in the world they inhabit and all the joy that proceeds from it. They have an idea that the moral evil which afflicts the human race has struck in. All the sufferings of the brute creation—the throes of labor, and sickness of body and pain of death—are so many voices proclaiming the fatal failure of Adam. Human nature itself is an awful thing. God is a great law giver, an inexorable avenger, an awful judge, a Being to be feared more than loved. Life is a trial—severe, unrelenting, perpetual. All that seems good and graceful and glorious in the world is a hollow sham, for the deception of the unwary and the ruin of the unwise.

Whetting his own Scythe.—The Rev. Wm. Jay, at his own chapel, always preferred going through the whole of the service himself; and on one occasion he quaintly said to a minister who had offered to pray before the sermon, "No sir, I am much obliged to you for your kind offer, but I like to whet my own scythe." The congregation generally thought he could whet it better than any one else.

A PARIS letter-writer says, "Crowds of Americans are now rushing to Paris for the winter. A few days ago we were looking at the Empress as she rode through the Champs Elysees, and it seemed to me that only Americans were gathered for the purpose of seeing that remarkably pretty woman. The Emperor, poor man, is very shaky in health. The fatigue and excitement of that bloody campaign have told deeply on his bodily and mental conditions. They say he has hours of suffering which no skill can alleviate. Many a poor pauper is less troubled with bad dreams than the imperial master of France."

Perseverance.—A friend of ours was asked if he believed in the perseverance of the saints. "I do not know," said he; "I believe in the *perseverance of sinners*, for I see any amount of that around me; but as for the perseverance of the saints, I am afraid there is a great deal less of it than there might be." We fear so too. We believe that it was Robert Hall, who told a somewhat unstable and inconsistent professor, that "the best way to preach perseverance was to be persevering."

Sympathy.—Parents should never put away their youth. They must never cease to be young.—Their sympathies and sensibilities should be always quick and fresh. They must be susceptible. They must love that which God made the child to love. Children need not only government, firm and mild, but sympathy warm and tender.

Whenever men or women find themselves losing their sympathy with youthful hearts and pursuits, they may be sure that something is wrong with them: for it is not in the nature of the soul to grow old. It may grow in height, and depth, and breadth, and power, but the passage of years can bring it no decay.

The Deacon's Dinner-Party.

Deacon Goodman was the very best man that ever lived. So at least said his friends and neighbors, who certainly ought to know, and for *enemies*, he probably had not one in the world. It is true, however, that the remark above-quoted was generally made as a sort of apologetic preface to something like the following: "But then he has such queer notions, he is so unlike anybody else, that we hardly know what to make of him." Perhaps these worthy people were oblivious of the fact that in order to be *very good*, it is often a painful *necessity* to be different from one's neighbors.

We cannot better illustrate Deacon Goodman's peculiarities than by describing a little entertainment given by him at his country-seat not long ago. For the Deacon, with all his unworldly goodness, is a prosperous merchant in New York, and the owner (by perfectly fair means) not only of a a brown-stone front in the city, but of a charming suburban residence. The Deacon's wife, though a very good woman in her way, was a far less peculiar personage than her husband. She fell quite gracefully into an amiable conformity with the ways of the world, and is not to be distinguished from the thousands of good women—of the wealthy class—who throng our city churches. Their two daughters, Miss Adelaide and Miss Ellen, had just left the restraints of their fashionable school, and enjoyed the prospect of "coming out" another winter, as full-fledged members of society.

"Husband," said Mrs. Deacon, one May morning soon after the family migration to the country, "Husband, you know we did not give that dinner that we were proposing last winter,—what do you say to having it here instead. We are so convenient to the city that they can easily come out in coaches."

"You gave a large party, did you not, which included all that should have been your dinner guests?"

"Dear me, yes! but that was quite a different thing. Now at this little affair I am speaking of, I should want only our most particular friends."

"Oh! if that is the plan, I like it well," rejoined the warm-hearted Deacon. "But why not ask them to pass a week with us?"

"Ask—whom?"

"Well, your brother John's family first; the children would enjoy it—and then—"

"Oh! you don't understand me at all! I mean only a few of the best families, whose acquaintance it is most desirable to cultivate."

"Really, wife, it does not seem quite honorable to invite guests for our own selfish purposes. I can sell hardware with a good conscience, but the hospitalities of my house—"

"Who wants to sell the hospitalities of your house? No, no, my dear, that is one of your odd notions. Everybody in society does just as I am proposing. And after all, this inviting is only doing as we would be done by."

"True, true," said the Deacon, with a merry laugh. "But why not do this favor to some one who will value it, to whom it will be a real kindness? There are hundreds now whom I could name, to whom a day spent among these green trees, in the fresh, sweet air of the country, would be an event to remember for a year."

"Oh, if you mean a charitable visit, that is very good in its place, but very different from the matter I have in hand. For our children's sake, my dear, it really is a duty to hold our place in good society."

The Deacon was always accessible to considerations of duty. He merely said:

"Well, name your day, and give me the list. I will have the invitations sent from my office."

"A capital thought; your accountant there is such a splendid penman. And as to the names, you know the families to whom we are under the greatest obligations. I would have company as select as possible, and I will try to make the whole affair pass off finely," said the worthy lady, beaming already with amiable complacency upon her prospective guests.

The expected day arrived. Mrs. Goodman and daughters, their elegant toilets at last perfected, were seated in the drawing-room, whose long windows looked across a cool verandah, and commanded the way of approach from the city. Though their fingers were occupied with light fancy work, expectant eyes were glancing continually down the road to meet the first arrival.

"No one will come for an hour yet, you may be sure," said Mrs. G. "Your father has such a horror of late hours, that he wanted us to be dressed and waiting by four o'clock."

"I never saw an omnibus on this road be-

fore," said Miss Ellen, as one of these plebeian vehicles made its appearance over the brow of the hill.

"Chartered for some special purpose," said her mother absently, as she mused upon the dinner.

"There is another," said Adelaide.

"And another," added Ellen.

"There is quite a procession of them," said the mother.

"And the first one is stopping at our gate," exclaimed Ellen.

"What in the world can all those forlorn-looking creatures want here?" cried Adelade, in consternation.

"Do go and send them away before our company comes," said Mrs. Goodman.

"I have seen some of them at the Industrial School," said Ellen, with a sudden gleam of merriment; "can this be one of father's curious tricks?"

"It certainly is," replied Adelaide, "for there he comes himself out of the last omnibus."

And in fact the good Deacon was now seen making his way through the crowd of poor people, who stood humbly waiting near the gate, and offering his arm to a witthered old lady in rusty bombazine, who had been among the first arrivals. He presented her and the foremost of the guests to his lady, who stood all in the rustle of astonishment and stiff brocade, on the verandah steps, and to his elegant daughters, who were half-way between laughing and crying at the novelty of the scene before them. Mrs. Goodman fortunately had the good sense or philosophy to perceive that a state of things which was manifestly not to be cured, had better be endured with the best grace possible; and her innocent guests, though somewhat awe-struck at such undreamed-of magnificence of apparel, were all unconscious of the struggle—and triumph, too—of grace that was going on beneath the studied hospitality with which she received them.

There was the old lady in black, who proved to be a widow, and utterly alone in the world; about the supply of whose wants the Deacon probably knew more than any man living. And there was an old man with one wooden leg; and a blind man, who was strongly suspected to have been seen at the wayside begging, until some benevolent individual—name unknown—had supplied him with a basket of saleable articles, by means of which he was now able to support himself and family. There were women, too, with wan faces, who seemed to have never enjoyed the freedom of God's blessed air; and puny children in their arms, whose heavy eyes brightened at the sight of green grass and waving trees. The older people were soon seated in the house, or on the piazzas, while the children, under convoy of Miss Ellen, who entered heartily into the spirit of the occasion, scattered about in merry games on the green lawn. Never was such play before; and to Ellen herself it seemed that the little birds never sang so sweetly, nor the fresh summer, air breathed so softly, and never was it so delightful to have a home in the country as on this very day.

The company once disposed, a sober second thought occurred to the lady hostess, more distressing doubtless than the first. An appealing look brought her husband to her corner. "What in the world am I to do?" she said. "I have not half provision enough for them to eat."

"That is all right," replied the Deacon, pointing to a market-wagon which was just unloading at the kitchen gate. "There is abundance for them all, and I have given directions to the cook."

Anxiety was needless; every arrangement had been completely made; and the entertainers devoted themselves again to their guests. Happily passed the hours of the golden afternoon. The ladies of the family recovered speedily from the shock of disappointment, and could not help admitting that they had never so thoroughly enjoyed a company before. It was only because the real delight of social life, that of conferring happiness on others, had never been so fully within their reach. It was a lesson worth the learning.

At six the company were assembled around the long tables, which, by the Deacon's direction, had been spread upon the shady lawn; and never probably did guests more heartily unite in thanksgiving for the bounties of Providence. Before they rose from the banquet, there was a gorgeous sunset, all in full view, to be enjoyed by many who, within their narrow walls, were almost as effectually excluded from God's free picture-gallery in the heavens, as from man's aristocratic ones on earth. At the same time, the full moon was rising in the east, and then there was a delightful evening, with the glancing fire-flies among the grass, and the cool breeves that never dreamed of brick walls and heated pavements—and by nine of the clock the whole company had departed in their train of conveyances for home.

The lady hostess was too tired or too thoughtful to demand explanations now.—When children and servants had silently assembled in the sitting-room at the hour of prayer, the worthy father of the family read from the great Bible the story of a feast given of old at the house of a chief Pharisee; and his voice lingered with special emphasis on the following words:

"When thou makest a dinner or a supper, call not thy friends nor thy brethern, neither thy kinsmen nor thy rich neighbors; lest they also bid thee again, and a recompense be made thee. But when thou makest a feast, call the poor, the maimed, the lame, the blind; and thou shalt be blessed, for they cannot recompense thee; for thou shalt be recompensed at the resurrection of the just."

He was certainly a strange man, that Deacon Goodman, and unfortunately very different from all the rest of the world.—*Independent.*

Every Day Heroism.

"I don't care, I won't try. Every thing goes wrong to-day," exclaimed Charley Morris, throwing down his slate and arithmetic in a pet. "When the fates are against you, what is the use of trying to do any thing?"

"What makes you think the fates *are* against you?" asked the mother quietly.

"Why, nothing succeeds that I try to do. Every thing turns out just the wrong way, I never saw such an ugly day."

"I want you to run and get me the book which I left on the seat at the farther end of the garden; then afterwards we will see if anything can be done to coax 'the fates' into better humor."

Charley returned with his face a littlo brighter from a moment's exercise in the fresh air, and seated himself on a low stool at his mother's feet.

"Don't you believe in unlucky days, mother?" said he.

"I don't believe in letting them come very often," said Mrs. Morris.

"But how can you help it, mother?"

"Treat them in such a way when they occur that they will not want to return very soon. But now I want you to tell me what has made this day 'unlucky,' and then perhaps I can tell you what to do about it."

"Well, you see mother, I happened to oversleep myself this morning, and was late at breakfast. That always puts me out of sorts. Then Agnes laughed at me for being so late when I was provoked enough with myself already, and that made me cross."

"Stop a moment, my dear, and notice where your 'unlucky day' began. The trifling error in being late in rising cannot excuse the greater fault of crossness and ill-temper. A single act of self-control might have altered the course of the whole day. But what next?"

"Then, mother, I went to school feeling just so cross; but I thought I had all my lessons perfectly, and could not make any mistakes in those. When I got to school, I found I had learned the wrong spelling lesson, and that provoked me a little more, but I set to work to learn the right one. While I was in the midst of that, the arithmetic class was called. I had studied the lesson thoroughly last night, but somehow the spelling or the being provoked, or something else, had put it all out of my head, so that I missed ever so many questions. And so it went all day, mother. None of my lessons were just right, and to end it all, I have got twelve extra examples to work out at home. I can't get them; it's no use trying to do any thing such days."

There was a pause of a few moments, during which the cloud that had gathered on the little boy's brow was gradually dissappearing, and then his mother said:

"Charley, you like to play soldier, don't you?"

'Yes, mother."

"And you like to read the histories of great soldiers and heroes of old times, such as Alexander ,and Cæsar and Napoleon."

"Yes, mother, very much."

"Well, tell me now, when do you like Alexander best, resting and feasting at Babylon, —or in action, fording rivers, crossing deserts, commanding his army, attacking the enemy, gaining his victories?"

"I like him best in action, mother, of course,"

"His actions were not usually of the right kind, but we like bravery and energy in any cause, better than laziness and cowardice.—When do you like best to read of Napoleon, —imprisoned at St. Helena, dragging out an inactive existence from day to day,—or at the beginning of his course, with all difficulties and hindrances around him, rising above them all by his strength of will?"

"Oh, I like him best in the beginning, mother," said Charley, with kindled enthusiasm. "That was splendid, his crossing the Alps.—Even the mountains could not keep him back when he was determined to go."

"But it would have been less trouble to him if there had been no mountains there," said Mrs. Morris. "Suppose he could have marched by a smooth road, straight from France into Italy."

"That would not have been half as grand, mother. Why he would not have been a hero at all, if he had not something to conquer."

"And the will to conquer it," said Mrs. Morris, with a smile; "That is just what I want you to notice now. We can not imitate, if we would, the precise actions of these great conquerors, and after all, we have much nobler work to do than killing men and robbing kingdoms. But we *can* copy their energy and strength of purpose, and our daily life furnishes as much opportunity to cultivate these qualities as their bold career."

"I don't see how, mother."

"The life of a little school boy presents some difficulties does it not, Charley?"

"Yes, mother," he replied, glancing ruefully at the arithmetic on the floor.

"Then *there* is something to conquer, and in the conquest you can grow strong and brave. Like Napoleon, *you* can never be a hero unless you have some obstacles to overcome."

"I wish the difficulties wouldn't always come when I feel so cross."

"The crossness is the very first thing you need to conquer. There is a proverb on that subject. You may read it for me, in Proverbs the 16th chapter and 32d verse."

Charley found the place and read; "He that is slow to anger is better than the mighty, and he that ruleth his spirit than he that taketh a city."

"That is an important thing to remember," said Mrs. Morris. "If we are ever to attain any thing great or good in life, our career of conquest must begin in our own hearts. Until all unruly feelings and passions are under control, our efforts toward knowledge, or any thing else that is worth the winning, will be of little avail. What people call adverse fate is always the result of their own faults and failings."

"Do you think one can always help feeling unpleasantly, mother?"

"I think one can learn either to put own all disagreeable feelings, or to work bravely on, and never mind them. But there is one unfailing resource for help in right doing, when our strength and wisdom fail. You know what that is, my boy?"

"I think I do, mother."

"Avail yourself of that help at the beginning of every day, and unpleasant circumstances will have little power to annoy you. But what lessons do you most frequently have trouble with, Charley?"

"Oh! this arithmetic, mother, it is the only thing that troubles me."

"I will write on a blank leaf of your book two little mottoes, which I wish you to look at whenever you are fretted or discouraged by difficulties. The first is: 'Every boy may be a hero.' And that you may remember what sort of heroism is to be sought, I will add this verse that you read:

"*He that ruleth his spirit is greater than he that taketh a city.*"

For Our Young Friends.

Scriptural Enigma.

I am composed of 16 letters.
My 12, 13, 15, 10, 2, was one of the prophets.
My 9, 4, 8, 14, 15, was Bishop of Creto.
My 10, 15, 9, 12, 16, 6, was a celebrated queen of Persia.
My 11, 7, 11, 16, 3, 10, 12, was a distinguished city whose destruction was foretold by two prophets.
My 5, 2, 6, 4, 14, 15, was a king of Persia.
My 15, 7, 15, 10, 6, 2, was a captain of the host of Jabin.
My 6, 14, 8, 12, was the great-grandmother of David.
My 15, 4, 12, 13, 11, was a king of the Amonites.
My 2, 6, 13, 1, 7, was one of the sons of Gad.
My whole was a celebrated American mathematician. S. J.
Greenfield.

Answer to Enigma of last week—THE ADMIRABLE CRICHTON.

GROVER & BAKER'S
CELEBRATED
FAMILY SEWING MACHINES,
495 Broadway, New York.
143 Jefferson Avenue, Detroit.
58 West Fourth Street, Cincinnati.
A NEW STYLE—PRICE $50.
This machine sews from two spools, as purchased from the store, requiring no rewinding of thread; it Hems, Fells, Gathers and Stitches in a superior style, finishing each seam by its own operation, without recourse to the hand-needle, as is required by other machines. It will do better and cheaper sewing than a seamstress can, even if she works for *one cent an hour*. Send for a Circular.

WHEELER & WILSON'S
IMPROVED
SEWING MACHINES.
PRICES GREATLY REDUCED.
Particular attention is invited to the
NEW STYLE AT $50.00.
SEND FOR A CIRCULAR.
L. D. & H. C. GRIGGS,
GENERAL AGENTS for Michigan and Western New York.
145 Jefferson Avenue, Detroit.

GOOD NEWS.—A reduction in the prices of Sewing Machines is announced in our advertising columns.—Their utility is established beyond question, and at the present prices we see no reason why they should not be found, as they ought to be, in every household. Several varieties are manufactnred, adapted to various purposes. So far as public opinion has been formed and uttered, the preference is emphatically accorded to the Wheeler and Wilson machine for family use, and for manufactures in the same range of purpose and material. During the present autumn the trials have been numerous, and all the patents of any pretension have brought fairly into competition. In every case, the Wheeler & Wilson machine has won the highest premium. We may instance the State Fair of New York, New Jersey, Pennsylvania, Kentucky, Illinois, Wisconsin, Virginia, Michigan, Indiana, Mississippi, Missouri and California, and the Fairs in Cincinnati, Chicago, St. Louis, Baltimore, Richmond, and San Fransisco. At the Fair of the St. Louis Mechanical Association, the Examining Committee was composed of twenty-five Ladies of the highest social standing, who, without a dissenting voice, awarded for the Wheeler & Wilson Machine, the highest only premium, a Silver Pitcher, valued at $75. If these facts do not establish a reputation, we know not what can.—*Christian Advocate and Journal.*

IMPORTANT TO SUBSCRIBERS AND CLUBS.
This is the Proper time to Subscribe or Make up Clubs.
LADIES' AMERICAN MAGAZINE!
THE CHEAPEST AND BEST.
1 copy one year.....$2 | 4 copies one year.....$6
2 copies " .....3 | 6 " " 8
8 copies for a club, with one additional copy, $10.
NEW VOLUME JANUARY, 1860.
THE PUBLISHER TO HIS SUBSCRIBERS.
In presenting the third volume of the Ladies' American Magazine, the publisher trusts that all will admit he has more than fulfilled the promises he made. The present volume numbers among its contributors some of the MOST POPULAR NAMES IN AMERICAN LITERATURE, and in addition to these, the names of others of equal eminence, who will enrich the future numbers, as well as the services of a gentleman of the highest literary attainments to conduct the Editorial Department.
The Fashion and Work-Table Department
will remain under the charge of Mrs. PULLAN, undoubtedly the most competent lady in America, whose instructions are distinguished for their clearness and practicability. The Illustrations of this department are worthy of notice; in respect to which the Magazine is in advance of all its contemporaries.
The Publisher also has arranged with Messrs. Capewell & Kimmel, the first Fashion steel engravers in America, to furnish
Original Illustrations and Colored Fashion Plates,
monthly, the beauty and accuracy of which cannot be surpassed, and may be relied on, being received from Paris and London in advance of those of all other publications in this country.
The third volume will commence with a SERIES OF NEW STORIES by eminent authors, written expressly for the Ladies' American Magazine, and chapters on
Wit, Anecdote, Humor, Literature and Amusements
as well as Hints on Domestic Matters, will be made features in the future numbers.
With these new elements and popular arttactions, the publisher confidently hopes that every home in America will find the Ladies' American Magazine an indispensable and welcome guest.
HENRY WHITE, Publisher,
48 37 Park Row, New York.

BEE-HIVES!
IN 1854 I published in the "Farmer's Companion," an account of the new and important invention of Rev. L. L. Langstroth, of what he termed a "*Movable-comb Bee-Hive.*" The subject of bee culture had always been one of no small importance in my view, and for the last ten years I have watched with great interest the progress of Bee-culture both in Germany and this country. Since the announcement of Mr. Langstroth's invention I have been watching it closely, until I am well satisfied, from a full trial, that it is the most important step ever made in bee-keeping. And after ascertaining that it was no humbug, but that it was truly a great improvement on the old mode of keeping bees, I purchased the right and title to Branch and St. Joseph counties, Mic., and now offer individual rights in those counties. If after a fair trial the hive does not prove satisfactory, I agre to return the price paid and take the hive back; thus welding all risk on the part of the purchaser.
All other movable frame hives are infringements on the Langstroth Patent, and preparations are now being made to prosecute all such impositions on the public.
Addres me at Burr Oak. [47-3m] CHAS. BETTS.

SWEET CIDER,
SPARKLING CIDER,
STILL CIDER.
SULPHITE OF LIME is highly recommended by Prof. Horsford (see the Farmer for Nov. 5) and its use endorsed by the Massachusetts Agricultural Society, in arresting the fermentation of Cider at any stage at will.
HIGBY & STEARNS, Druggists, Detroit, offer the Sulphite of Lime put up in bottles holding sufficient for 64 gallons of Cide for *Seventy-five cents* each.
Directions for its use will accompany it when desired.
Address HIGBY & STEARNS,
36-13w Detroit, Mich.

JAMES G. DUDLEY.
No. 93 Main Street, Buffalo, N. Y.
GENERAL WESTERN AGENT FOR
HOWE'S
Improved Standard Scales.
STRONG & ROSS PATENTS.
Great simplicity: Wonderful Accuracy; No PIT; NO CHECK RODS; Weigh when out of level; No jarring of platform affects the Balance; All friction received on Balls, not on Knife Edges; Sold Cheap and Warranted.
All sizes shown on Store Floor.
Scales for all uses on sale.
HERRING'S PATENT SAFES.
FIRE AND BURGLAR PROOF,
WITH HALL'S POWDER PROOF LOCKS.
Vault Doors, Money Boxes.
BANK LOCKS, at Makers' Lowest Prices.
HERRING'S SAFES NEVER FAIL.
Cast Steel Church Bells.
FROM SHEFFIELD, ENGLAND,
Tested many years in all climates, Europe and America. Weigh less; Better Tones; Heard farther; Cost 50 per cent less than COMPOSITION BELLS, which are also sold at Makers' Lowest Prices.
BELLS OF ALL SIZES, FOR ALL USES.
44-1y
First Premiums at seven State Fairs in 1858 to Howe's Scales. Used and approved by leading Merchants, Rail Roads, &c., in all parts.
Every scale warranted to give satisfaction, or taken away. Send for Circulars and Price Lists. All Scales, Safes and Bells at Makers' Prices.

IMPORTANT TO FARMERS.
GEORGE BEARD, Wholesale dealer in Oysters Fruits, Game, &c., will pay the highest market price for Choice Fruit of all kinds, Game, Poultry, &c.
Bassett House Corner, Detroit. 42-1y

THE BUCKEYE
REAPER AND MOWER!
Aultman & Miller's Patent,
MANUFACTURED BY
Waters, Lathrop & McNaughton,
JACKSON, MICHIGAN.
IT IS NOW definitely settled that these are THE MACHINES which our farmers want. The high encomiums and numerous awards of "First Premiums" which they have received at State and County Fairs, this year, as well as formerly, are well merited.
A much more conclusive proof of their Surpassing Excellence, is furnished by the many *Field Trials* which they have had, by FARMERS, on their own lands, at their own leisure, and in open competition with
All other Mowing and Reaping Machines.
In every such trial, "THE BUCKEYE" has received the decided approbation of the *Practical Farmers.*
AT THE GREATEST
PRACTICAL FIELD TRIAL
Ever held in this country, at
SYRACUSE, N. Y., JULY, 1857.
THE FIRST PREMIUM!
Grand Gold Medal and Diploma!
Offered by the
UNITED STATES AGRICULTURAL SOCIETY,
For the
BEST MOWING MACHINE,
Was awarded to this Machine, over
Manny's, Ketchum's, Burrell's, Hallenbeck's, Allen's, Kirby's, Heath's, Hovey's, The Ohio Mower, and a number of others.
It has also received at the Indiana State Agricultural Society's Field Trial,
Trumbull county, Ohio, First Premium,
Clark county, Ohio, First Premium,
Albany county, New York, First Premium,
Queen's county, L. I., First Premium,
Duchess county, New York, First Premium,
Portage county, Ohio, First Premium,
Summit county, Ohio, First Premium,
And at
MANY OTHER FIELD TRIALS!
besides the decision of the Farmers in its favor, *over all competitors,* in many field trials, among the farmers themselves, with the single object of satisfying themselves which was the best machine.
The BUCKEYE also received the
New York State Agricultural Society's First Premium, 1858.
Connecticut State Fair, First Premium, 1857.
do do do First Premium, 1858.
Maryland State Fair, First Premium, 1858.
Eastern Virginia State Fair, First Premium, 1858.
Western Virginia State Fair, First Premium, 1858.
And the Michigan State Agricultural Society's Fair in 1859, and numerous other
State, County and Town Awards!
It is, therefore, with the utmost confidence that they are now offered, (after the successful trial by more than 200 farmers of Michigan during the last summer) as the very machine which their fellow farmers want—suited to every variety of grass and grain and to every variety and state of soil—wet and marshy or dry and stony.
We intend to manufacture in the best manner, all the Mowers and Reapers which the farmers of Michigan need—if they will let us know in good time (and the sooner the better) how many they will want.
They cannot be hurried up on short notice, and the cash outlay for them is too large and the profit too small, for us to make a large number more than will be wanted. Therefore, when the farmer knows what he wants, the sooner he gives his order, the more certain he is to get the right article at the right time.
WATERS, LATHROP & McNAUGHTON.
Jackson, Oct. 1859. 42-tf

SUMMER COMPLAINTS.
Viz: Diarrhea and Cholera Morbus, and Flatulent and Spasmodic Colics.
WE, THE UNDERSIGNED, have for several years past sold
B. FOSGATE'S ANODYNE CORDIAL,
and during this period have witnessed its salutary effects in curing the diseases for which it is recommended, viz
Acute and Chronic Diarrhea and Cholera Morbus,
in our own, and in the families of our customers, and have also seen its successful administration in cases of
CHOLERA INFANTUM.
We do, therefore, confidently recommend it to all those who may be afflicted with those distressing and dangerous complaints, as offering one of the best means for their cure or relief:
W. BRISTOL, Utica, T. M. HUNT, Auburn.
J. J. FOOT, Hamilton. J. OSBORN, Seneca Falls.
L. PARSONS, Westfield. L. KELLY & Co., Geneva.
S. WHITE & SON, Fredonia. L. REDDY, Penn Yan.
A. P. CURTIS, Attica. FITCH & DILLAYE, Syracuse
W. SEAVER & SON, Batavia. J. OWEN & Co., Detroit.
J. G. BARLEER, Leroy. H. & E. GAYLORD, Cleveland
T. BEADLE, Elmira. G. WILLARD, Ashtabula.
A. J. MATTHEWS, Buffalo. G. G. GILLET, Kingsville.
L. B. SWAN, Rochester. CARTER & BRO., Erie.
N. B. It is particularly useful to Children when Teething, as it allays irritation, induces moderate perspiration and produces sleep.
Sold by Druggists generally. PRICE 25 Cents.
C. N. TUTTLE, General Agent,
29-6m Auburn, N. Y.

MAMMOTH GIFT BOOK STORE
202 Jefferson Avenue, Detroit.
BOOKS sold at Publishers' prices, and with each book a GIFT
Worth from 75 cents to $75.
Send for a catalogue. Address
D. B. TARBOX & CO,
nov19-2m Box 1518, Detroit.

FAILURE OF THE HAY CROP
CUT YOUR FODDER AND SAVE MONEY.
THE CLIPPER
HAY, STRAW AND STALK CUTTER.
Took 1st Premium at the State Fair for 1859.
IT DOES ITS WORK FASTER AND BETTER; is more simple in its construction, and is sold at a lower price than any other Machine in market.
It needs only to be seen and tried to be appreciated.
Manufactured and sold by
C. P. WOODRUFF & CO., Detroit,
And for sale in all parts of the State. 42-3m

FRUIT TREES.
CULTIVATED AND FOR SALE AT THE
Waterloo Nursery, Monroe, Mich.
THE SUBSCRIBER having established and cultivated a large quantity of the best varieties of sound Grafted Fruit Trees, of all kinds, on his Farm on Front street, in the City of Monroe, where he offers for sale on reasonable terms, by any quantity this fall and next spring.—All those desirous to purchase are invited to call and judge for themselves. M. FISHBURN.
Sept. 20th, 1859.
N. B.—Any order will be promptly attended to, and sent to any station of any railroad, or elsewhere.
41-4t M. F

WANTED.
AT THE AMERICAN SEED STORE, 20 Bushels of Peach Pitts and Plum Pitts, for which Cash will be paid. Detroit, Nov. 19. [47-4w] BLOSS & CO.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue.

DETROIT, MICHIGAN.

S. FOLSOM,

WOOL DEALER,

90 Woodward Avenue,

DETROIT, MICHIGAN.

THE MARKETS.

Flour and Meal.

Considerable more activity has prevailed in this market during the past week than for some time previously, yet still trade is very quiet.

Flour—There has been some shipping demand for flour, and several hundred barrels have been taken for the East during the week. The market nevertheless is easier than last reported, the range for extras now not exceeding $4 75a5. There is a fair amount offering at these figures.

Wheat—In rather better supply than last week. The market has been much more active than then reported. The demand has been principally for milling and to complete cargoes, and prices are fully up to our last quotations. The market closes steady at $1 22a1 23 for extra white; $1 18a1 20 for No. 1 do; $1 15 for No 2 do; $1 08 a1 10 for No. 1 red; and $1 05 for No. 2. From wagons $1 15a1 16 is paid for fair white.

Corn—Very little corn is moving. Old is held at 75c, and new shelled at 56c. The sales have been confined to light lots.

Oats—Holders generally believing an advance must soon take place are keeping their stocks off the market. A few lots have sold at 35a36c. Market quiet.

Rye—We note no change from our former quotations 63a68c. Very little is doing in rye.

Barley—The demand for barley is hardly as brisk as it has been, but the market is steady, and without material change. Good spring brings $1 31a1 38 and some prime winter has sold at $1 50 per cwt.

Peas—Quiet at 60c per bu.

Beans—Dull and nominal at 65c.

Millstuffs—Scarce and higher. Bran is now quoted at $15, coarse middlings $17a18, and fine do at $20a22.—We hear of no transactions in corn meal.

Potatoes—Dull at last week's figures. They sell to some extent from wagons at 25a28c, but the demand is limited.

Grass Seed—Timothy seed is wanted at $1 75a2 00 per bushel.

A New York circular says of Breadstuffs—

There is no particular change to note in the market for breadstuffs. The fall business has been active, and at the moderate prices of the day buyers for the Eastern market and the British Provinces have purchased freely. Since my last report, the receipts of flour have been on the increase, and the stock in store has been somewhat augmented. For export to England there is a fair enquiry, but the orders have not, as yet, come out at limits that admit of general execution, and a moderate business only is doing for that purpose. As the season of Canal receipts is drawing rapidly to a close, there is more firmness shown, and at yesterday's exchange the tendency was upward with a slight advance on the lower grades. Wheat is in moderate demand for milling purposes, but the speculative enquiry has considerably abated. The receipts for the fortnight have been heavy, a large portion of which has gone into store for winter sales. There is much confidence among holders, and the market closes firmly. Indian Corn of the new crop comes in slowly, and brings for distilling purposes 52a53c per 56 lb; the stock of old is light.

Provisions.

Still pork-packing has hardly commenced in this city. Only some three houses have commenced operations, and these only to a limited extent as yet. A good many dressed hogs are being purchased for shipment to Buffalo, however. Prices for hogs are this week about 25c lower, the range for hogs averaging 150 to 240 lbs., being $4 25a5 50, only very heavy hogs now being over $5.

Beef packing has entirely closed for the season, A large amount has been barrelled this year in this city. New Mess continues to sell at $9a9 50.

Mess Pork—Is lower, new being worth only $15 per bbl. Now that the Lake Superior trade is closed for the season, the demand for pork is very moderate.

Lard and Tallow—Remain at last weeks quotations—11 and 10 cents.

Butter—The market for butter is steady, at about last weeks rates. Perhaps sales are not made quite so readily as then, but prices are not lower. We quote prices—firkin 14c—choice roll 16c17c.

Eggs—In limited supply and good demand, at 14a15c by the barrel.

Live Stock, &c.

There is still very little change to note in live stock. The market is well supplied, but former prices are maintained.

Beef Cattle—A lot of 22 head, fine quality were sold yesterday at $2 72 per 100 lbs gross. The entire range for ordinary to prime would be $2 00a3 00. Beef packing is now over, and there is less demond for inferior stock.

Sheep—We still quote $2 00a3 00 per head. A lot of 150 good sheep brought $2 50 each, which may be considered an average quotation.

Hogs—Live hogs are also in good supply at $4 00a4 25 gross weight.

The Albany *Journal* says of that market:

"Although there is a falling off in the receipts of 288 head, we cannot quote wholesale prices any better than last week. Holders are asking more, and are pretty stiff, but what sales have been made show no improvement in rates. Especially is this the case if we take quality into consideration. The average quality in the yards to-day is considerably ahead of that last week, and remembering this fact, it cannot be said that higher figures have been obtained for the beef. The drovers have little advantage in the falling off of receipts, as the quality, we think, fully makes up for the deficiency—in other words, there are about as many pounds of beef on sale this week as last. The weather, however, favors sellers. It is clear and cold, and promises to continue so throughout the week. This gives them more confidence than any other one circumstance, and explains the comparative firmness with which many of them stand by their demand for an advance. They look for an improved tone before the market closes, but it is barely possible that they will be disappointed. The indications are that less will go east than for many previous weeks, some of the heaviest buyers from that direction having held over a considerable portion of the stock purchased by them last week."

The New York Live Stock market is thus reported by telegraph:

Beef Cattle...Advanced ½ per lb, owing to decreased receipts. Prices varied from 6 to 10½, averaging about 8c per lb. Receipts 3,900 head.

Sheep and Lambs—Advanced 25c per head, market active. Receipts 13,500 carcases.

Swine—Declined ¼ per lb. Receipts 11,500, being an increase of 5,000 over last week. Prices ranged from 5 to 5¾c.

Wool.

The N. Y. *Courier & Enquirer* says of wool:

"Operations have been restricted by the announcement of an auction sale to take place in Philadelphia on the 30th inst. Since our last report no sales of importance have been made. Holders are pretty firm, although less sanguine of a rise than during October. Large orders have gone abroad for Wools, and it is expected that the supplies will be ample for requirements without a material change in prices.

FOR SALE.

ONE-FOURTH interest in one of the best PLASTER BEDS and Steam Mill lying on Grand River. There are thirty-five acres, and the Plaster is forty feet thick, and can be mined, being elevated above the River. A good improved Farm will be taken in part pay, and six years' time for balance, with interest at ten per cent will be given. Apply soon, as the owner wants to go South. Possession given immediately. ADIN J. HINDS,
Grand Rapids, Oct. 26, 1859. 44-4t*

MINISTER'S WOOING,

BY

HARRIET BEECHER STOWE.

Price $1.25. Sent to any part of the State free of postage on receipt of price.

Just received and for sale by

PUTNAM SMITH & CO.,
43-1w 118 Woodward Avenue, Detroit.

DURHAM STOCK FOR SALE.

THE YEARLING BULL SNOWBALL, No. 3450 American Herd Book, awarded first premium at our County Fair. Also, two Bull Calves, one sired by Orpheus, dam Ophelia; the ohter sired by Strakosch, dam Eugenia. Perfect pedigrees will be furnished.

F. E. WALBRIDGE,
40-8w Kalamazoo, Mich.

PURE BLOOD

LEICESTER & SOUTHDOWN SHEEP FOR SALE.

THE UNDERSIGNED invites the attention of the Farmers of Michigan desirous of procuring Leicester and Southdown sheep for breeding purposes, to his flock from which he proposes to sell one and two years old, both ewes and bucks at low prices, also April lambs weighing from 80 to 105 pounds. E. T. BRYAN.
Marengo, Calhoun Co., Michigan, Oct. 18, 1859.
43-4w

WOOL! WOOL!!

30,000 POUNDS OF WOOL WANTED

AT OSBORN'S FACTORY in exchange for good substantial cloth such as DOESKIN, CASSIMERE, BLACK, BROWN and GRAY CASSIMEERS, SATINETT, TWEEDS, WHITE and RED FLANNEL, also STOCKING YARN, all of which were made expressly for durability. We will exchange for wool on the most reasonable terms, also wool manufactured on shares, or by the yard, also wool carded, and spun, and twisted at our usual rates. All those in want of a good article of cloth for their own use, will do well to send their wool to Osborn's Factory. All work warranted well done and done to order. All wool sent to Ann Arber by Rail Road will be promptly attended to. For further particulars please address at Ann Arbor,

28-6m* H. OSBORN & CO.

WALLACE'S WOOLEN FACTORY. BATTLE CREEK, MICH.

THE SUBSCRIBER continues to manufacture wool into CLOTH, CASSIMERE, TWEEDS and FLANNEL for farmers, either on shares or by the yard.—Terms as reasonable as any other good establishment in the State. Goods warranted perfect, hard twisted, and durable, free from cotton, old rags or flocks.

Farmers if you want a good article of cloth, send on your wool; it may be sent by railroad, with directions, and shall be promptly returned, and warranted to give satisfaction or all damages paid.

A large stock and good variety of cloths, stocking yarn, &c., always on hand.

He will pay the highest market price in cash, or cloth at wholesale prices, for any quantity of wool delivered at his factory.

Wool carding and cloth dressing done in the best manner on short notice. WILLIAM WALLACE.
Battle Creek, May, 1859. 28-6m

D. APPLETON & CO.,

346 AND 348 BROADWAY, N. Y.

Have Just Published,

VOLUME VII.—("Edw—Fue.")

OF THE

NEW AMERICAN CYCLOPÆDIA:

A Popular Dictionary of General Knowledge,

EDITED BY

GEORGE RIPLEY AND CHALES A. DANA,

Assisted by a numerous but Select Corps of Writers

The object of

THE NEW AMERICAN CYCLOPÆDIA

Is to exhibit, in a new condensed form, the present state of human knowledge on every subject of rational inquiry in

SCIENCE,	ART,	LITERATURE,
PHILOSOPHY,	RELIGION,	POLITICS,
AGRICULTURE,	MEDICINE,	BIOGRAPHY,
COMMERCE,	MATHEMATICS,	GEOGRAPHY,
MANUFACTURES,	ASTRONOMY,	TRAVELS,
LAW,	HISTORY,	CHEMISTRY,
MECHANICS,	TRADE.	

With this design, the numerous Encyclopædias, Dictionaries of special branches of study, and popular conversations, Lexicons, in the English, French, and German languages, have, of course, been diligently consulted and compared. But the NEW AMERICAN CYCLOPÆDIA is not founded on any European model; in its plan and elaboration it is strictly original. Many of the writers employed on this work have enriched it with their personal researches, observations and discoveries.

As far as is consistent with thoroughness of research and exactness of statement, the popular method has been pursued. By condensation and brevity, the Editors have been enabled to introduce a much greater variety of subjects than is usually found in similar works, and thus to enhance the value of the NEW AMERICAN CYCLOPÆDIA as a Manual of Universal Reference. At the same time an entertaining style has been aimed at, wherever it would not interfere with more important considerations. Special care has been bestowed on the department of Living Biography.

In the preparation of the present volume, nearly a hundred collaborators have assisted including persons in almost every part of the United States, in Great Britain, and on the Continent of Europe whose names have attained an honorable distinction, each in some special branch of learning. No restriction has been imposed on them, except that of abstinence from the expression of private dogmatic judgments, and from the introduction of sectarian comments, at war with the historical character of the work. In this fact, it is hoped will be found a guaranty of the universality and impartiality of the NEW AMERICAN CYCLOPÆDIA, which, the Publishers do not hesitate to say will be superior in extent, variety and exactness of information to any similar publication in the English language.

PRICE—In Cloth, $3; Library style, leather, $3 50; half morocco, $4; half Russia, extra, $4 50.

Five volumes have already been issued, and the remainder will be published as fast as they can be got ready.

WM. B. HOWE, Agent for Detroit.

Booksellers desiring to act as agents, will please address the Publishers.

Horse Powers, Threshers and Cleaners!

PITT'S 8 AND 10 HORSE, EMERY'S 1 AND 2 Horse (tread) Powers, Pease's Excelsior Powers, Corn and Cob Mills, Corn Mill and Feed Mills, Flour Mills, Cross-cut and Circular Saw Mills, Leonard Smith's Smut Machines. PENFIELD'S,
No. 103 Woodward Ave., Detroit.

Andre Leroy's Nurseries!

At ANGERS, FRANCE.

THE PROPRIETOR of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends and the public that his Catalogue of

Fruit and Ornamental Trees, Shrubs, Roses, Seedlings, Fruit Stocks, &c.,

for the present season is now ready and at their disposal Apply as heretofore to F. A. BRUGUIERE,
and-iem 51 Cedar Street, New York.

SEEDS, SEEDS!

FRESH SHAKER SEEDS, of LAST YEARS growth and warranted. Also, Spring Wheat, Sweet Potatoes of several kinds, King Philip, Flour, Dutton, Eight Rowed and Sweet Corn, Timothy, Clover, Barley Peas, &c., at PENFIELD'S,
103 Woodward Ave. Detroit

1859. WINTER ARRANGEMENT. 1860.

MICHIGAN SOUTHERN AND DETROIT, MONROE and TOLEDO *RAIL ROAD.*

MONROE, CHICAGO, TOLEDO, CINCINNATI AND CLEVELAND LINE,

With its connections, forms a Through Route from Detroit to Monroe, Adrian, Chicago, Toledo, Sandusky, Cleveland, Dayton, Hamilton, Cincinnati, Pittsburg, Wheeling, Harrisburg, Philadelphia, Baltimore, Washington, Erie, Dunkirk, Buffalo, Albany, New York, Boston Montreal, Quebec, Portland, Rouse's Point, and all points interior, in Ohio, Pennsylvania, New York, and the New England States, and all points West and South-West.

ON and after Monday, November 14th, 1859, Passenger Trains will run as follows:

FROM DETROIT, Mail and Express, daily except Sundays, at 9.30 A. M., arriving in Chicago at 10.30 P. M., and Toledo at 12.27 P. M.

Montreal and Chicago Express, daily at 9.20 P. M., arriving in Chicago at 10.30 A. M., and Toledo at 12.15 A. M.

FROM CHICAGO, Mail and Express, daily except Sundays, at 6.00 A. M., arriving in Detroit at 6.00 P. M.

Chicago and Montreal Express, daily at 7.00 P. M., arriving in Detroit at 7.00 A. M.

FROM TOLEDO, Mail and Express, daily except Sundays, at 3.00 P. M., arriving at Detroit at 6.00 P. M.,

Chicago and Montreal Express, daily at 4.00 A. M., arriving in Detroit at 7.00 A. M.

CONNECTIONS:

Trains from Detroit connect at Adrian with Michigan Southern Main Line for Chicago, with New Albany and Salem Railroad, at the crossing of that line, and at Chicago with all Roads for the Northwest and South.

Connect also at Adrian with Jackson Branch Trains for Jackson.

Connect at Toledo with Dayton and Michigan Road, for Dayton, Hamilton and Cincinnati; with the Cleveland and Toledo Road, for Sandusky, Cleveland, Pittsburg, Dunkirk, Buffalo, Albany, Boston and New York; with Wabash Valley Road for Fort Wayne, and points Southwest, and with Air Line Rail Road for Bryan, Kendalville, Ligonier and Goshen.

Trains from Chicago and Toledo connect at Detroit with Grand Trunk Railroad of Sarnia, Toronto, Presscott, Montreal, Quebec, Portland and Boston; with Great Western Railway for Niagara Falls, Buffalo, Albany, New York and Boston, also with Detroit and Milwaukee Railway, for Grand Rapids Grand Haven and intermediate Stations.

FREIGHT TRAINS leave Detroit daily except Sundays at 5.50 A. M., arriving in Toledo at 11.10 A. M., and Chicago via. Adrian at 8.10 next morning.

Leave Chicago daily except Sundays, at 9.15. A. M, and 3.00 P. M., arriving in Detroit at 9.00 P. M.

☞ Trains are run by Chicago time, which is Twenty Minutes slower than Detroit time.

☞ Woodruff's Patent Sleeping Cars accompany all night trains on this route.

Time and Fare the same as by any other Rail Road route.

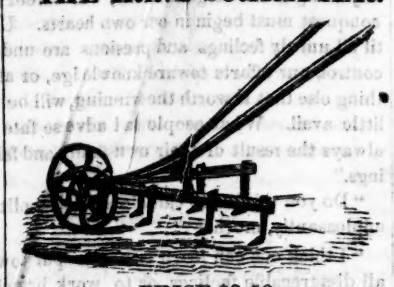
☞ No change of cars between Detroit and Chicago. Baggage checked through to all points East & West.

JNO. D. CAMPBELL,
GENERAL SUP'T, Toledo, Ohio.

L. P. KNIGHT, Agent, Detroit. 7-tf

THE IMPLEMEIT FOR GARDENS.

THE HAND SCARIFIER.



PRICE $3.50.

WE offer for sale the Hand Scarifier, the most desirable and useful implement for gardens, of any that has been invented, and the most perfect labor saver.

Read the testimony of those who have tried it last season:—

ROCHESTER, OAKLAND, CO., MICH., FEBY., 1859.

MESSRS. BLOSS & ADAMS:

You cannot recommend too highly your Hand Scarifier. It is an invaluable machine for cultivating all root crops sown in drills. It works easy, a boy of 12 years old can use it and do more work than five men can with hoes in the same time. It pulverises the surface of the ground and kills all the weeds. I had one the last season and speak from experience. A person having a quarter of an acre of garden to cultivate should not be without one and no farmer or gardener after using one a single hour would be without one for four times its cost.

W. JENNINGS.

ROCHESTER, OAKLAND, CO., MICH., FEBY, 1859.

MESSRS. BLOSS & ADAMS:

In answer to your inqury, "How we like the Hand Scarifier," we reply that we are highly pleased with it.—It is the greatest labor saving machine for its cost that we have ever used, or seen. For all root crops sown in drills it is invaluable. One man with this machine can do more work in one day than five can with hoes, and do it better. We have used it two seasons and would rather pay twenty dollars for one than do without it.

Yours respectfully, U. ADAMS.
JULIEN ADAMS.

These implements are for sale, by the subscribers at heir their seed store, J. B. BLOSS & CO.
No. 22 Monroe Avenue, Detroit.

DRY GOODS AND CARPETS.

NALL, DUNCKLEE & CO.

Would invite the attention of the Farmers of Michigan when visiting Detroit, to their extra

FALL & WINTER STOCK

OF

CARPETS,

FOREIGN AND DOMESTIC

DRY GOODS,

Embracing every variety of

Fancy Silks, Black Silks,
Valencia Robes, Bayadere Stripes,
Laces, Embroideries,
White Goods, Kid Gloves.
Hosiery, Sheetings, Cloths,
Flannels, Ticks, Printed Lawns
Cambrics, Gingham,
Muslin de Laines
Stella Shawls, Broche Shawls,

OUR CARPET AND FURNISHING STOCK

Is complete in all its branches.

Tapestry Velvet Carpet,
Tapestry Brussels do,
Imperial Three Ply,
Extra Super Ingrain,
Superfine do, Fine Ingrain do,
Cotton and Wool do.
Silk Damask, Worsted do,
Morreens, Druggets, Green Baizes,
Cocoa Matting, Plain and Check Matting,
Gilt Shade, Common, do,
Shade Tassels, Cornices,
Rugs and Mats.
Window Hollands,
Window Shades,
Oil Cloths, 3, 6, 12, 18 and 24 foot,
Live Geese Feathers, Paper Hangings
Which we offer cheap for cash.

NALL, DUNCKLEE & CO.
14-1y No. 74 Woodward Avenue, Detroit.

BURNHAM & Co., Dealers in all kinds of Agricultural Implements, Garden and Field Seeds, Salt, Plaster, Coal, Water and Stone Lime. Storage and Commission. Warehouse near Rail Road depot. Battle Creek, Michigan. G. S. STERLING
D. B. BURNHAM.

THE GREAT WONDER

OF THE NINETEENTH CENTURY,

PROFESSOR WOOD'S HAIR RESTORATIVE.

Says the St. Louis, (Mo.) Democrat: Below, we publish a letter to Dr. Wood, of this city, from a gentleman in Maine which speaks glowingly of the superior merits of his hair tonic. Such evidence must have its effect, when coming from a reliable source. If certificates are guarantees of truth, the Dr. needs no encomiums, nor useless puffery from the press:

BATH, MAINE, Jan. 20, 1856.

Professor O. J. Wood & Co.,

GENTLEMEN: Having my attention called a few months since to the highly beneficial effects of your hair restorative, I was induced to make application of it upon my own hair, which had become quite gray, probably one-third white; my whiskers were of same character. Some three months since I procured a bottle of your hair restorative and used it. I soon found it was proving what I had wished. I used it about twice a week. I have since procured another bottle, of which I have used some. I can now certify to the world that the gray or white hair has totally disappeared, both on my head and face, and my hair has resumed its natural color, and I believe more soft and glossy than it has been before for twenty-five years. I am now sixty years old; my good wife at the age of fifty-two, has used with the same effect.

The above notice I deem due to you for your valuable discovery. I am assured that whoever will rightly use, as per directions, will not have occasion to contradict my statements, I am a citizen of this city and a resident here for the last fifteen years, and am known to nearly every one here and adjoining towns. Any use you may make of ihe above, with my name attached is at your service, as I wish to preserve the beauties of nature in others as well as myself. I am, truly, yours,

A. C. RAYMOND.

BALTIMORE, Jan. 23, 1858.

WOOD'S HAIR RESTORATIVE.

Professor Wood—Dear Sir: Having had the misfortune to lose the best portion of my hair, from the effects of the yellow fever, in New Orleans in 1854, I was induced to make a trial of your preparation, and found it to answer as the very thing needed. My hair is now thick and glossy, and no words can express my obligations to you in giving to the afflicted such a treasure.

FINLEY JOHNSON.

The undersigned, Rev. J. K. Bragg, is a member in regular standing, and pastor of the Orthodox Church at Brookfield, Mass. He is a gentleman of great influence and universally beloved. WM. DYER.

Brookfield, January 12, 1858.

Professor Wood—Dear Sir: Having made trial of your Hair Restorative, it gives me pleasure to say, that its effect has been excellent in removing inflamation, dandruff and a constant tendency to itching with which I have been troubled from my childhood: and has also restored my hair, which was becoming gray, to its original color. I have used no other article with anything like pleasure or profit. Yours truly,

J. K. BRAGG.

The Restorative is put up in bottles of 3 sizes, viz: large, medium, and small; the small holds ½ a pint, and retails for one dollar per bottle; the medium holds at least twenty per cent. more in proportion than the small, retails for two dollars per bottle; the large holds a qaart, forty per cent, more in proportion, and retails $3.

O. J. WOOD & CO., Proprietors, 312 Broadway, New York, (in the great N. Y, Wire Railing Establishment,) and 114 Market St., St. Louis, Mo.

And sold by all good Druggists and Fancy Goods Dealers. 45-3m

THE WILLIS' STUMP PULLER

IS the most powerful and most economical machine in use for pulling stumps, and will clear a field in less time than any other invention of a like kind.

Twenty-three stumps have been pulled with this Machine in an hour and fifteen minutes. The undersigned will sell machines and rights to use and manufacture in any part of Michigan except the counties of Hillsdale, Branch, Wayne, Washtenaw, Jackson, Calhoun, Kalamazoo, Van Buren, Macomb, Genesee, Shiawasse, Saginaw Tuscola and St. Clair, which are already sold.

All necessary information as to prices, and mode of using, will be given on application to

DAVID BLACKMAR, Ypsilanti.

or to R. F. JOHNSTONE, Editor Michigan Farmer.

The Machines are manufactured at the Detroit Locomotive Works from the best Lake Superior Iron. [3]

DAINES' AMERICAN DRAIN TILE MAKER.

The Best and Cheapest Tile Machine in the World.

Forty-one first Premiums awarded to it at State and County Fairs. First Premium at the National Fair, at Louisville, Ky., 1857.

The TILE MACHINE invented by JOHN DAINES, of Birmingham, Oakland county, Michigan, is now being manufactured in the most thorough manner, and is offered to the farming community as the

Cheapest, Most Labor-Saving and Most Complete Invention,

and enabling farmers to make their own Tiles, that has yet been put before the Agriculturists of the United States, at a reduced price.

These machines are made of iron, are easily worked, any man being able to manufacture a first rate article after a few hours practice.

They cost delivered in Detroit only $100. They have two dies, for three and four inch tile; and extra dies to accompany the machine cost $2.00 each.

These machines will manufacture per day, according to the force employed, from **150 TO 250** RODS OF HORSESHOE OR PIPE TILE. The machine weighs but 500 pounds, and can be packed and sent to any part of the United States, or to foreign countries, as easily as a piano. With this machine, any farmer who has a fair quality of clay on his farm, can manufacture his own Tiles at a cheap rate, and easily save the price of the machine by avoiding the cost of transportation. The machine when in operation, takes up no more room than an ordinary sized kitchen table; it may be worked by two or three men as may be found most convenient and economical, or a man and two boys can keep it in full operation.

For Simplicity, Durability, Economy, Cheapness, and amount of work, this Tile Maker Challenges the World!

At the present time, when thorough draining has become a necessity on alluvial lands, it offers the simplest and cheapest means of furnishing farmers with a draining material far superior to any other material now used for that purpose.

☞ Applications for these machines may be addressed to JOHN DAINES,
9-tf Birmingham, Mich.

J. L. HURD & CO.

DETROIT MICH.

Produce and Shipping Merchants

Agents and Consignees for the following Lines:

AMERICAN TRANSPORTATION COMPANY.

CAPITAL $900.000.

WESTERN TRANSPORTATION COMPANY.

CAPITAL $900,000.

AND THE NEW YORK CENTRAL R. R. Co.

We would respectfully announce to the Millers, Merchants and Manufacturers of Michigan, that the recent reduction of Canal Tolls on the Erie Canal, will enable us to carry eastward, from Detroit,

FLOUR, WHEAT, CORN, OATS, WOOL, ASHES, HIDES,

And all other products of Michigan, at prices much below those of former years. Our lines are

THE MODEL LINES OF THE COUNTRY.

J. L. HURD & Co.,
[11]1yr Foot of Second-st.

DRAIN TILE!

WE KEEP CONSTANTLY ON HAND THE different kinds of Drain Tile, at PENFIELD'S, 103 Woodward avenue.

AYER'S AGUE CURE,

FOR THE SPEEDY CURE OF

INTERMITTENT FEVER, OR FEVER AND AGUE, REMITTENT FEVER, CHILL FEVER, DUMB AGUE, PERIODICAL HEADACHE, OR BILIOUS HEADACHE, AND BILIOUS FEVERS, INDEED FOR THE WHOLE CLASS OF DISEASES ORIGINATING IN BILIARY DERANGEMENT, CAUSED BY THE MALARIA OF MIASMATIC COUNTRIES.

No one remedy is louder called for by the necessities of the American people than a secure and safe cure for Fever and Ague. Such a remedy we are now enabled to offer, with a perfect certainty that it will eradicate the disease, and with assurance founded on proof, that no harm can arise from its use in any quantity.

That which protects from or prevents this disorder must be of immense service in the communities where it prevails. *Prevention* is better than cure, for the patient escapes the risk which he must run in violent attacks of this baleful distemper. This "CURE" expels the miasmatic poison of FEVER AND AGUE from the system and prevents the development of the disease, if taken on the first approach of its premonitory symptoms. It is not only the best remedy ever yet discovered for this class of complaints, but also the cheapest. The large quantity we supply for a dollar brings it within the reach of every body; and in bilious districts, where FEVER AND AGUE prevails, every body should have it and use it freely both for cure and protection. It is hoped this price will place it within the reach of all—the poor as well as the rich. A great superiority of this remedy over any other ever discovered for the speedy and certain cure of Intermittents is, that it contains no Quinine or mineral, consequently it produces no quinism or other injurious effects whatever upon the constitution. Those cured by it are left as healthy as if they had never had the disease.

Fever and Ague is not alone the consequence of the miasmatic poison. A great variety of disorders arise from its irritation, among which are Neuralgia, Rheumatism, Gout, Headache, Blindness, Toothache, Earache, Catarrh, Asthma, Palpitation, Painful Affection of the Spleen, Hysterics, Pain in the Bowels, Colic, Paralysis, and Derangement of the Stomach, all of which, when originating in this cause, put on the intermittent type, or become periodical. This "CURE" expels the poison from the blood, and consequently cures them all alike. It is an invaluable protection to immigrants and persons traveling or temporarily residing in the malarious districts. If taken occasionally or daily while exposed to the infection, that will be excreted from the system, and cannot accumulate in sufficient quantity to ripen into disease. Hence it is even more valuable for protection than cure, and few will ever suffer from Intermittents, if they avail themselves of the protection this remedy affords.

PRICE ONE DOLLAR PER BOTTLE.

Prepared by Dr. J. C. AYER,

PRACTICAL AND ANALYTICAL CHEMIST

Lowell, Mass.

All our remedies are for sale by J. S. Farrand, Detroit, and by all Druggists every where. 45-3m

SANFORD'S LIVER INVIGORATOR.

NEVER DEBILITATES.

IT is compounded entirely from Gums, and has become an established fact, a Standard Medicine, known and approved by all that have used it, and is now resorted to with confidence in all the diseases for which it is recommended.

It has cured thousands within the last two years who had given up all hopes of relief, as the nucerous unsolicited certificates in my possession show.

The dose must be adapted to the temperament of the individual taking it, and used in such quantities as to act gently on the Bowels.

Let the dictates of your judgment guide you in the use of the **LIVER INVIGORATOR,** and it will cure **Liver Complaints, Bilious Attacks, Dyspepsia, Chronic Diarrhea, Summer Complaints, Dysentery, Dropsy, Sour Stomach, Habitual Costiveness, Cholic, Cholera Morbus, Cholera Infantum, Flatulency, Female Weakness, Jaundice, and may be used successfully as an Ordinary Family Medicine.** It will cure **SICK HEADACHE,** (as thousands can testify,) **in twenty minutes, if two or three teaspoonfuls are taken** at commencement of attack.

All who use it are giving their testimony in its favor.

MIX WATER IN THE MOUTH WITH THE INVIGORATOR, AND SWALLOW BOTH TOGETHER.

Price One Dollar per Bottle.

—ALSO.—

SANFORD'S FAMILY CATHARTIC PILLS.

COMPOUNDED FROM

Pure Vegetable Extracts, and put up in GLASS CASES, Air Tight, and will keep in any climate.

The **Family Cathartic PILL** is a gentle but active Catharthe which the proprietor has used in his practice more than twenty years. The constantly increasing demand from those who have long used the **PILLS** and the satisfaction which all express in regard to their use, has induced me to place them within the reach of all.

The Profession well know that different Cathartics act on different portions of the bowels. The **FAMILY CATHARTIC PILL** has, with due reference to this well established fact, been compounded from a variety of the purest Vegetable Extracts, which act alike on every part of the alimentary canal, and are **good** and **safe** in all cases where a Cathartic is needed, such as **Derangements** of the **Stomach, Sleepiness, Pains in the Back and Loins, Costiveness, Pain and Soreness over the whole Body,** from sudden cold, which frequently, if neglected, end in a long course of Fever, **Loss of Appetite, a Creeping Sensation of Cold over the body, Headache,** or **Restlessness, weight in the head** all **Inflammatory Diseases, Worms** in **Children** or **Adults, Rheumatism,** a great **Purifier** of the **Blood** and many diseases to which flesh is heir, too numerous to mention in this advertisement

Dose, 1 to 3.

PRICE 30 CENTS.

The Liver Invigorator and Family Cathartic Pills are retailed by Druggists generally, and sold wholesale by the Trade in all the large towns.

S. T. W. SANFORD, M. D.,
Manufacturer and Proprietor,
31-1yr.tf 335 Broadway, New York.

FURNITURE WAREHOUSE,

ON JEFFERSON AVENUE,

BELOW MICHIGAN EXCHANGE, DETROIT.

The subscribers keep constantly on hand a large stock of **ELEGANT FURNITURE,**

Both Modern and Antique Styles; in Rosewood, Mahogany and Domestic Wood.

Those wishing rich and fashionable furniture, will always find a great variety to select from—equal in every respect to anything in the Eastern market. Being in constant receipt of Pattern Pieces from the

FASHIONABLE MAKERS IN NEW YORK,

they are enabled to guarantee the most **Perfect Satisfaction** to their customers.

They also keep constantly on hand a large and complete assortment of Plain Furniture of Mahogany, Cherry and Walnut. In short, every article in the line of Household Furniture will be found in their Stock, including Chairs of every style and price, from four shillings to sixty dollars each. The subscribers now have on hand and make to order, best

HAIR MATTRESSES.

Their customers can rely upon getting a genuine article. CORN-HUSK MATTRESSES & STRAW PALLIASES constantly on hand. For the trade we keep constantly a large stock of Mahogany and Rosewood Veneer.

STEVENS & ZUG.

"HARD TIMES NO MORE."

ANY Lady or Gentleman, in the United States, possessing from $2 to $7 can enter into an easy and respectable business, by which from $5 to $10 per day can be realized. For particulars, address, (with stamps,)

W. R. ACTON & CO.,
34-3m* 41 North Sixth st., Philadelphia.